NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

(NASA-TM-80988) INDEX OF NACA TECHNICAL PUBLICATIONS, JUN. 1956 - JUN. 1957 (National Advisory Committee for Aeronautics) 274 p

N80-73442

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INDEX OF NACA TECHNICAL PUBLICATIONS

July, 1956 - June, 1957

NACA

WASHINGTON - 1957

PREFACE

This index of NACA Technical Publications covers the NACA research reports issued in the period of July 1956 through June 1957. It is the sixth supplement to the basic 1915-1949 Index.

The research reports issued prior to July 1956 which have been declassified since that date have also been included. A list of these reports may be found on pages 243-244. Cards for this list may be discarded as entries for them are included in this Index. Current announcement of newly declassified materials is regularly made in the NACA Research Abstracts and Reclassification Notice.

The arrangement of this Index follows: (1) Explanatory chart of NACA publications series designations, (2) outline of subject classification system, (3) chronological list of NACA reports under each subject classification, (4) list of reports declassified from July 1956 through June 1957, (5) alphabetical index to subject categories, and (6) author index.

Entries included herein duplicate in part the information of the index cards furnished with the individual research reports. Recipients maintaining card files may wish to discard those index cards on hand for unclassified research reports issued during the July 1956-June 1957 period. Such cards were printed on yellow stock for easy identification in the discard process. Please note that some classified reports issued during the July-December 1956 period are included in the yellow stock area. Therefore care must be taken to avoid destroying such cards.

Newly available research reports are currently announced in the NACA Research Abstracts and Reclassification Notice and are normally available for a period of five years after announcement. Most of the older research reports (those issued prior to July 1952) are thus available on a "loan only" basis within the United States. Requests for NACA research reports should be forwarded to the address given below.

Division of Research Information
National Advisory Committee for Aeronautics
1512 H Street, N. W.
Washington 25, D. C.

December 1, 1957.

EXPLANATORY CHART OF NACA PUBLICATIONS SERIES
DESIGNATIONS

PUBLICATIONS SERIES	SYMBOL	CURRENTLY ISSUED	NUMBERED CONSECUTIVELY	NUMBER BASED ON LABORATORY** OF ORIGIN	NUMBER BASED ON DATE OF ISSUE-YEAR* MONTH# DAY###	EXAMPLE WITH EXPLANATION
Reports	None	Yes	Yes	No	No	Report 1004 - 1004th Report issued.
Research Memorandums	RM	Yes	No	Yes	Yes	RM L9K03a - Research Memorandum written by Langley Laboratory Personnel in 1949 and issued on November 3rd, being the second RM released on that date.
Technical Memorandums	TM	Yes	Yes	No	No	TM 1313 - 1313th Technical Memorandum issued.
Technical Notes	TN	Yes	Yes	No	No	TN 2432 - 2432nd Technical Note issued.
Wartime Reports	WR	No	Yes	Yes	No	WR A-6 - 6th Wartime Report issued that was based on Ames Laboratory research. Reported earlier to a limited audience and was reprinted.
Adv. Conf. Reports	ACR	No	No	Yes, after March, 1944##	Yes, after April, 1943##	ACR E4D19 - Advance Confidential Report written by Lewis Laboratory personnel in 1944 and issued on April 19th.
Adv. Rest'd. Reports	ARR	No	No	Yes, after March, 1944##	Yes, after April, 1943##	ARR L4K22b - Advance Restricted Report written by Langley Laboratory personnel in 1944 and issued on November 22nd, being the 3rd ARR issued on that date.
Conf. Bulletins	CB	No	No	Yes, after March, 1944##	Yes, after April, 1943##	CB E5J11 - Confidential Bulletin written by Lewis Laboratory personnel in 1945 and issued October 11th.
Memorandum Reports	MR	No	No	Yes, after October, 1944##	Yes, after October, 1944##	MR A4L12 - Memorandum Report written by Ames Laboratory personnel in 1944 and issued on December 12th.
Restricted Bulletins	RB	No	No	Yes, after March, 1944##	Yes, after April, 1943##	RB E6D22 - Restricted Bulletin written by Lewis Laboratory personnel in 1946 and issued on April 22nd.
Aircraft Circulars	AC	No	Yes	No	No	AC 150 - 150th Aircraft Circular issued.

Symbol and date only used prior to date mentioned.

**A - Ames
E - Lewis
L - Langley

*5 - 1945
6 - 1946
7 - 1947
8 - 1948
9 - 1949
50 - 1950
51 - 1951
52 - 1952

#A - January
B - February
C - March
D - April
E - May
F - June
G - July
H - August
I - September
J - October
K - November
L - December

01
02
03 . . etc. to 31 followed by
a - 2nd document issued that date
b - 3rd document issued that date

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(1)
AERODYNAMICS

(1.1)
Fundamental Aerodynamics

AERODYNAMIC MIXING DOWNSTREAM FROM LINE SOURCE OF HEAT IN HIGH-INTENSITY SOUND FIELD. William R. Mickelsen and Lionel V. Baldwin. August 1956. (ii), 75p. diagrs., photos. (NACA TN 3760)

CALCULATION OF THE FORCES AND MOMENTS ON A SLENDER FUSELAGE AND VERTICAL FIN PENETRATING LATERAL GUSTS. John M. Eggleston. October 1956. 20p. diagrs., tab. (NACA TN 3805)

INTERACTION OF MOVING SHOCKS AND HOT LAYERS. Robert V. Hess. May 1957. 65p. diagrs. (NACA TN 4002)

(1.1.1)
INCOMPRESSIBLE FLOW

THEORETICAL ANALYSIS OF INCOMPRESSIBLE FLOW THROUGH A RADIAL-INLET CENTRIFUGAL IMPELLER AT VARIOUS WEIGHT FLOWS. James J. Kramer, Vasily D. Prian, and Chung-Hua Wu. 1956. ii, 16p. diagrs., tab. (NACA Rept. 1279. Supersedes TN 3448; TN 3449)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE SUBSONIC-FLOW FIELDS BENEATH SWEPT AND UNSWEPT WINGS WITH TABLES OF VORTEX-INDUCED VELOCITIES. William J. Alford, Jr. August 1956. 91p. diagrs., photo., tabs. (NACA TN 3738)

IMPINGEMENT OF DROPLETS IN 60° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Paul G. Saper, and Charles F. Kadow. October 1956. 54p. diagrs., tabs. (NACA TN 3770)

RESULTS OF TWO FREE-FALL EXPERIMENTS ON FLUTTER OF THIN UNSWEPT WINGS IN THE TRANSONIC SPEED RANGE. William T. Lauten, Jr., and Herbert C. Nelson. January 1957. 20p. diagrs., photo., tabs. (NACA TN 3902. Supersedes RM L51C08)

(1.1.2)
COMPRESSIBLE FLOW

INITIAL FLUTTER TESTS IN THE LANGLEY TRANSONIC BLOWDOWN TUNNEL AND COMPARISON WITH FREE-FLIGHT FLUTTER RESULTS. William J. Bursnall. January 1953. 19p. diagrs., photos., tabs. (NACA RM L52K14)

FLIGHT-DETERMINED PRESSURE DISTRIBUTIONS OVER THE WING OF THE BELL X-1 RESEARCH AIRPLANE (10-PERCENT-THICK WING) AT SUBSONIC AND TRANSONIC SPEEDS. Ronald J. Knapp and Gareth H. Jordan. June 1953. 43p. diagrs., photo., tab. (NACA RM L53D20)

WING LOADS ON THE BELL X-1 RESEARCH AIRPLANE (10-PERCENT-THICK WING) AS DETERMINED BY PRESSURE-DISTRIBUTION MEASUREMENTS IN FLIGHT AT SUBSONIC AND TRANSONIC SPEEDS. Ronald J. Knapp and Gareth H. Jordan. November 1953. 35p. diagrs., photo., tab. (NACA RM L53G14)

FUSELAGE PRESSURES MEASURED ON THE BELL X-1 RESEARCH AIRPLANE IN TRANSONIC FLIGHT. Ronald J. Knapp, Gareth H. Jordan, and Wallace E. Johnson. November 1953. 21p. diagrs., photo. (NACA RM L53I15)

EXPERIMENTAL FLUTTER INVESTIGATION OF A THIN UNSWEPT WING AT TRANSONIC SPEEDS. George L. Pratt. April 1955. 24p. diagrs., tabs. (NACA RM L55A18)

SOME POSSIBILITIES OF USING GAS MIXTURES OTHER THAN AIR IN AERODYNAMIC RESEARCH. Dean R. Chapman. 1956. ii, 22p. diagrs., tabs. (NACA Rept. 1259. Supersedes TN 3226)

A THEORY FOR STABILITY AND BUZZ PULSATION AMPLITUDE IN RAM JETS AND AN EXPERIMENTAL INVESTIGATION INCLUDING SCALE EFFECTS. Robert L. Trimpi. 1956. ii, 24p. diagrs., photos., tabs. (NACA Rept. 1265. Supersedes RM L53G28)

SIMILAR SOLUTIONS FOR THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER AND PRESSURE GRADIENT. Clarence B. Cohen and Eli Reshotko. 1956. ii, 38p. diagrs., tabs. (NACA Rept. 1293. Supersedes TN 3325)

THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER AND ARBITRARY PRESSURE GRADIENT. Clarence B. Cohen and Eli Reshotko. 1956. ii, 16p. diagrs., tabs. (NACA Rept. 1294. Supersedes TN 3326)

AN ANALYSIS OF BUZZING IN SUPERSONIC RAM JETS BY A MODIFIED ONE-DIMENSIONAL NONSTATIONARY WAVE THEORY. Robert L. Trimpi. July 1956. 72p. diagrs., photos. (NACA TN 3695. Supersedes RM L52A18)

(1) AERODYNAMICS

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE SUBSONIC-FLOW FIELDS BENEATH SWEPT AND UNSWEPT WINGS WITH TABLES OF VORTEX-INDUCED VELOCITIES. William J. Alford, Jr. August 1956. 91p. diagrs., photo., tabs. (NACA TN 3738)

AN EXPERIMENTAL INVESTIGATION OF STING-SUPPORT EFFECTS ON DRAG AND A COMPARISON WITH JET EFFECTS AT TRANSONIC SPEEDS. Maurice S. Cahn. September 1956. 67p. diagrs., tabs. (NACA RM L56F18a)

INTERACTION OF GRIDS WITH TRAVELING SHOCK WAVES. Darshan Singh Dosanjh, Johns Hopkins University. September 1956. 80p. diagrs., photos. (NACA TN 3680)

RADIATION AND RECOVERY CORRECTIONS AND TIME CONSTANTS OF SEVERAL CHROMEL-ALUMEL THERMOCOUPLE PROBES IN HIGH-TEMPERATURE, HIGH-VELOCITY GAS STREAMS. George E. Glawe, Frederick S. Simmons, and Truman M. Stickney. October 1956. 25p. diagrs., photo., tabs. (NACA TN 3766)

TABULATION OF MASS-FLOW PARAMETERS FOR USE IN DESIGN OF TURBOMACHINE BLADE ROWS FOR RATIOS OF SPECIFIC HEATS OF 1.3 AND 1.4. Warren J. Whitney. October 1956. 111p. diagrs., tabs. (NACA TN 3831)

AVERAGE PROPERTIES OF COMPRESSIBLE LAMINAR BOUNDARY LAYER ON FLAT PLATE WITH UNSTEADY FLIGHT VELOCITY. Franklin K. Moore and Simon Ostrach. December 1956. 35p. diagrs., tabs. (NACA TN 3886)

SIMPLIFIED METHOD FOR ESTIMATING COMPRESSIBLE LAMINAR HEAT TRANSFER WITH PRESSURE GRADIENT. Eli Reshotko. December 1956. 16p. diagrs. (NACA TN 3888)

RESULTS OF TWO FREE-FALL EXPERIMENTS ON FLUTTER OF THIN UNSWEPT WINGS IN THE TRANSONIC SPEED RANGE. William T. Lauten, Jr., and Herbert C. Nelson. January 1957. 20p. diagrs., photo., tabs. (NACA TN 3902. Supersedes RM L51C08)

ON STOKES' STREAM FUNCTION IN COMPRESSIBLE SMALL-DISTURBANCE THEORY. Milton D. Van Dyke. February 1957. 15p. diagrs. (NACA TN 3877)

INVESTIGATION OF SEPARATED FLOWS IN SUPERSONIC AND SUBSONIC STREAMS WITH EMPHASIS ON THE EFFECT OF TRANSITION. Dean R. Chapman, Donald M. Kuehn, and Howard K. Larson. March 1957. 109p. diagrs., photos. (NACA TN 3869)

A THEORETICAL STUDY OF THE EFFECT OF UPSTREAM TRANSPIRATION COOLING ON THE HEAT-TRANSFER AND SKIN-FRICTION CHARACTERISTICS OF A COMPRESSIBLE, LAMINAR BOUNDARY LAYER. Morris W. Rubesin and Mamoru Inouye. May 1957. 41p. diagrs., tab. (NACA TN 3969)

INTERACTION OF MOVING SHOCKS AND HOT LAYERS. Robert V. Hess. May 1957. 65p. diagrs. (NACA TN 4002)

NONUNIFORMITIES IN SHOCK-TUBE FLOW DUE TO UNSTEADY-BOUNDARY-LAYER ACTION. Harold Mirels and W. H. Braun. May 1957. 45p. diagrs. (NACA TN 4021)

A POWER-SERIES SOLUTION FOR THE UNSTEADY LAMINAR BOUNDARY-LAYER FLOW IN AN EXPANSION WAVE OF FINITE WIDTH MOVING THROUGH A GAS INITIALLY AT REST. Nathaniel B. Cohen. June 1957. 56p. diagrs., tabs. (NACA TN 3943)

AN INTEGRAL SOLUTION TO THE FLAT-PLATE LAMINAR BOUNDARY-LAYER FLOW EXISTING INSIDE AND AFTER EXPANSION WAVES AND AFTER SHOCK WAVES MOVING INTO QUIESCENT FLUID WITH PARTICULAR APPLICATION TO THE COMPLETE SHOCK-TUBE FLOW. Robert L. Trimpi and Nathaniel B. Cohen. June 1957. ii, 180 p. diagrs., tab. (NACA TN 3944)

COMPRESSIBLE LAMINAR BOUNDARY LAYER OVER A YAWED INFINITE CYLINDER WITH HEAT TRANSFER AND ARBITRARY PRANDTL NUMBER. Eli Reshotko and Ivan E. Beckwith. June 1957. (i), 86p. diagrs., tabs. (NACA TN 3986)

(1.1.2.1) SUBSONIC FLOW

AN INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF AN AIR INLET INSTALLED IN THE ROOT OF A 45° SWEPT-BACK WING. Robert R. Howell and Arvid L. Keith, Jr. October 1952. 47p. diagrs., photos., tabs. (NACA RM L52H08a)

THE INFLUENCE OF VORTEX GENERATORS ON THE PERFORMANCE OF A SHORT 1.9:1 STRAIGHT-WALL ANNULAR DIFFUSER WITH A WHIRLING INLET FLOW. Charles C. Wood and James T. Higginbotham. February 1953. 38p. diagrs., photo., tab. (NACA RM L52L01a)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A RECTANGULAR WING OF ASPECT RATIO 2 OSCILLATING ABOUT THE MIDCHORD. Edward Widmayer, Jr., Sherman A. Clevenson, and Sumner A. Leadbetter. August 1953. 45p. diagrs., tabs. (NACA RM L53F19)

PERFORMANCE CHARACTERISTICS OF A 24° STRAIGHT-OUTER-WALL ANNULAR-DIFFUSER-TAILPIPE COMBINATION UTILIZING RECTANGULAR VORTEX GENERATORS FOR FLOW CONTROL. Charles C. Wood and James T. Higginbotham. October 1953. 33p. diagrs., tabs. (NACA RM L53H17a)

EFFECTS OF DIFFUSER AND CENTER-BODY LENGTH ON PERFORMANCE OF ANNULAR DIFFUSERS WITH CONSTANT-DIAMETER OUTER WALLS AND WITH VORTEX-GENERATOR FLOW CONTROLS. Charles C. Wood and James T. Higginbotham. September 1954. 39p. diagrs., photo., tab. (NACA RM L54G21)

ANALYSIS AND CALCULATION BY INTEGRAL METHODS OF LAMINAR COMPRESSIBLE BOUNDARY LAYER WITH HEAT TRANSFER AND WITH AND WITHOUT PRESSURE GRADIENT. Morris Morduchow, Polytechnic Institute of Brooklyn. 1955. ii, 19p. diagrs., tabs. (NACA Rept. 1245)

INVESTIGATION OF TWO SHORT ANNULAR DIFFUSER CONFIGURATIONS UTILIZING SUCTION AND INJECTION AS A MEANS OF BOUNDARY-LAYER CONTROL. Stafford W. Wilbur and James T. Higginbotham. January 1955. 43p. diagrs. (NACA RM L54K18)

SECOND-ORDER SUBSONIC AIRFOIL THEORY INCLUDING EDGE EFFECTS. Milton D. Van Dyke. 1956. ii, 23p. diagrs., tabs. (NACA Rept. 1274. Supersedes TN 3390 and portions of TN 3343)

INTENSITY, SCALE, AND SPECTRA OF TURBULENCE IN MIXING REGION OF FREE SUBSONIC JET. James C. Laurence. 1956. ii, 27p. diagrs., photo., tab. (NACA Rept. 1292. Supersedes TN 3561; TN 3576)

ON SLENDER-BODY THEORY AND THE AREA RULE AT TRANSONIC SPEEDS. Keith C. Harder and E. B. Klunker. November 1956. 14p. (NACA TN 3815. Supersedes RM L54A29a)

PARTICULAR SOLUTIONS FOR FLOWS AT MACH NUMBER 1. Max. A. Heaslet and Franklyn B. Fuller. November 1956. 32p. diagrs. (NACA TN 3868)

THE SIMILARITY RULES FOR SECOND-ORDER SUBSONIC AND SUPERSONIC FLOW. Milton D. Van Dyke. January 1957. 20p. diagrs. (NACA TN 3875)

ANALYTICAL INVESTIGATION OF THE EFFECT OF WATER INJECTION ON SUPERSONIC TURBOJET-ENGINE - INLET MATCHING AND THRUST AUGMENTATION. Andrew Beke. January 1957. 25p. diagrs. (NACA TN 3922)

ON SUBSONIC FLOW PAST A PARABOLOID OF REVOLUTION. Carl Kaplan. February 1957. 21p. diagrs., tab. (NACA TN 3700)

EXPERIMENTAL INVESTIGATION OF THE OSCILLATING FORCES AND MOMENTS ON A TWO-DIMENSIONAL WING EQUIPPED WITH AN OSCILLATING CIRCULAR-ARC SPOILER. Sherman A. Clevenson and John E. Tomassoni. March 1957. 20p. diagrs., photos. (NACA TN 3949. Supersedes RM L53K18)

CHARTS FOR THE ANALYSIS OF FLOW IN A WHIRLING DUCT. Robert A. Makofski. May 1957. 21p. diagrs. (NACA TN 3950)

(1. 1. 2. 2)
MIXED FLOW

FLIGHT INVESTIGATION OF THE DRAG OF ROUND-NOSED BODIES OF REVOLUTION AT MACH NUMBERS FROM 0.6 TO 1.5 USING ROCKET-PROPELLED TEST VEHICLES. Roger G. Hart. July 1951. 9p. diagrs., photos., tab. (NACA RM L51E25)

AN INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF AN AIR INLET INSTALLED IN THE ROOT OF A 45° SWEPT-BACK WING. Robert R. Howell and Arvid L. Keith, Jr. October 1952. 47p. diagrs., photos., tabs. (NACA RM L52H08a)

A STUDY OF THE USE OF FREON-12 AS A WIND-TUNNEL TESTING MEDIUM AT LOW SUPERSONIC MACH NUMBERS. Milton A. Schwartzberg. November 1952. 24p. diagrs., photo. (NACA RM L52J07)

(1) AERODYNAMICS

FLIGHT MEASUREMENTS OF PRESSURES ON BASE AND REAR PART OF FUSELAGE OF THE BELL X-1 RESEARCH AIRPLANE AT TRANSONIC SPEEDS, INCLUDING POWER EFFECTS. Ronald J. Knapp and Wallace E. Johnson. January 1953. 31p. diagrs., photos. (NACA RM L52L01)

MEASUREMENTS OF FLUCTUATING PRESSURES ON THE WINGS AND BODY OF A SWEPTBACK WING-BODY COMBINATION IN THE LANGLEY 16-FOOT TRANSONIC TUNNEL. Louis W. Habel and Donald R. Bowman. September 1953. 24p. diagrs., photos. (NACA RM L53G06a)

BUFFETING FORCES ON TWO-DIMENSIONAL AIRFOILS AS AFFECTED BY THICKNESS AND THICKNESS DISTRIBUTION. Charles F. Coe and Jack A. Mellenthin. February 1954. 26p. diagrs., photo. (NACA RM A53K24)

PRESSURES AND ASSOCIATED AERODYNAMIC AND LOAD CHARACTERISTICS FOR TWO BODIES OF REVOLUTION AT TRANSONIC SPEEDS. Harold L. Robinson. March 1954. 34p. diagrs., tab. (NACA RM L53L28a)

TRANSONIC FLOW PAST CONE CYLINDERS. George E. Solomon, California Institute of Technology. 1955. ii, 16p. diagrs., photos. (NACA Rept. 1242. Supersedes TN 3213)

THE UNSTEADY NORMAL-FORCE CHARACTERISTICS OF SELECTED NACA PROFILES AT HIGH SUBSONIC MACH NUMBERS. Perry P. Polentz, William A. Page, and Lionel L. Levy, Jr. May 1955. 110p. diagrs., photos., tab. (NACA RM A55C02)

THREE-DIMENSIONAL TRANSONIC FLOW THEORY APPLIED TO SLENDER WINGS AND BODIES. Max. A. Heaslet and John R. Spreiter. July 1956. 72p. diagrs. (NACA TN 3717)

CALCULATIONS OF THE FLOW OVER AN INCLINED FLAT PLATE AT FREE-STREAM MACH NUMBER 1. Walter G. Vincenti, Cleo B. Wagoner, and Newman H. Fisher, Jr. August 1956. 70p. diagrs., tabs. (NACA TN 3723)

A FACTOR AFFECTING TRANSONIC LEADING-EDGE FLOW SEPARATION. George P. Wood and Paul B. Gooderum. October 1956. 43p. diagrs., photos. (NACA TN 3804)

ON SLENDER-BODY THEORY AND THE AREA RULE AT TRANSONIC SPEEDS. Keith C. Harder and E. B. Klunker. November 1956. 14p. (NACA TN 3815. Supersedes RM L54A29a)

PARTICULAR SOLUTIONS FOR FLOWS AT MACH NUMBER 1. Max. A. Heaslet and Franklyn B. Fuller. November 1956. 32p. diagrs. (NACA TN 3868)

EXPERIMENTAL DETERMINATION OF THE RANGE OF APPLICABILITY OF THE TRANSONIC AREA RULE FOR WINGS OF TRIANGULAR PLAN FORM. William A. Page. December 1956. 22p. diagrs., photos. (NACA TN 3872)

RESULTS OF TWO FREE-FALL EXPERIMENTS ON FLUTTER OF THIN UNSWEPT WINGS IN THE TRANSONIC SPEED RANGE. William T. Lauten, Jr., and Herbert C. Nelson. January 1957. 20p. diagrs., photo., tabs. (NACA TN 3902. Supersedes RM L51C08)

THIN AIRFOIL THEORY BASED ON APPROXIMATE SOLUTION OF THE TRANSONIC FLOW EQUATION. John R. Spreiter and Alberta Y. Alksne. May 1957. 82p. (NACA TN 3970)

(1.1.2.3) SUPERSONIC FLOW

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS AT A MACH NUMBER OF 1.53 INCLUDING EFFECT OF SMALL VARIATIONS OF SWEEP. Robert T. Madden. January 26, 1949. 71p. diagrs., photos., tabs. (NACA RM A8J04)

A PRESSURE-DISTRIBUTION INVESTIGATION OF A SUPERSONIC AIRCRAFT FUSELAGE AND CALIBRATION OF THE MACH NUMBER 1.59 NOZZLE OF THE LANGLEY 4- BY 4-FOOT SUPERSONIC TUNNEL. Morton Cooper, Norman F. Smith, and Julian H. Kainer. July 29, 1949. 51p. diagrs., photos., tabs. (NACA RM L9E27a)

EFFECTS OF CERTAIN FLOW NONUNIFORMITIES ON LIFT, DRAG, AND PITCHING MOMENT FOR A TRANSONIC-AIRPLANE MODEL INVESTIGATED AT A MACH NUMBER OF 1.2 IN A NOZZLE OF CIRCULAR CROSS SECTION. Virgil S. Ritchie. August 31, 1949. 12p. diagrs., photo. (NACA RM L9E20a)

INVESTIGATION OF DOWNWASH, SIDEWASH, AND MACH NUMBER DISTRIBUTION BEHIND A RECTANGULAR WING AT A MACH NUMBER OF 2.41. D. Adamson and William B. Boatright. September 14, 1950. 115p. diagrs., photos., tab. (NACA RM L50G12)

EXPERIMENTAL PRESSURE DISTRIBUTIONS OVER TWO WING-BODY COMBINATIONS AT MACH NUMBER 1.9. Barry Moskowitz and Stephen H. Maslen. February 5, 1951. 31p. diagrs., photos. (NACA RM E50J09)

AN INVESTIGATION OF FLOW CHARACTERISTICS AT MACH NUMBER 4.04 OVER 6- AND 9-PERCENT-THICK SYMMETRICAL CIRCULAR-ARC AIRFOILS HAVING 30-PERCENT-CHORD TRAILING-EDGE FLAPS. Edward F. Ulmann and Douglas R. Lord. July 1951. 67p. diagrs., photos., tab. (NACA RM L51D30)

AERODYNAMICS OF SLENDER BODIES AT MACH NUMBER OF 3.12 AND REYNOLDS NUMBERS FROM 2×10^6 TO 15×10^6. I - BODY OF REVOLUTION WITH NEAR-PARABOLIC FOREBODY AND CYLINDRICAL AFTERBODY. John R. Jack and Warren C. Burgess. November 1951. 47p. diagrs., photos. (NACA RM E51H13)

AERODYNAMIC CHARACTERISTICS OF A SLENDER CONE-CYLINDER BODY OF REVOLUTION AT A MACH NUMBER OF 3.85. John R. Jack. November 1951. 24p. diagrs., photos. (NACA RM E51H17)

PRELIMINARY INVESTIGATION OF USE OF CONICAL FLOW SEPARATION FOR EFFICIENT SUPERSONIC DIFFUSION. W. E. Moeckel and P. J. Evans, Jr. December 1951. 15p. photos., diagrs. (NACA RM E51J08)

FLOW SEPARATION FROM RODS AHEAD OF BLUNT NOSES AT MACH NUMBER 2.72. Jim J. Jones. July 1952. 18p. diagrs., photos. (NACA RM L52E05a)

AN INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF AN AIR INLET INSTALLED IN THE ROOT OF A 45° SWEPT-BACK WING. Robert R. Howell and Arvid L. Keith, Jr. October 1952. 47p. diagrs., photos., tabs. (NACA RM L52H08a)

A STUDY OF THE USE OF FREON-12 AS A WIND-TUNNEL TESTING MEDIUM AT LOW SUPERSONIC MACH NUMBERS. Milton A. Schwartzberg. November 1952. 24p. diagrs., photo. (NACA RM L52J07)

INFLUENCE OF END PLATES ON LIFT AND FLOW FIELD OF A CANARD-TYPE CONTROL SURFACE AT A MACH NUMBER OF 2.00. George A. Wise. March 1953. 14p. photos., diagrs. (NACA RM E53A02)

INVESTIGATION OF SPOILERS AT A MACH NUMBER OF 1.93 TO DETERMINE THE EFFECTS OF HEIGHT AND CHORDWISE LOCATION ON THE SECTION AERODYNAMIC CHARACTERISTICS OF A TWO-DIMENSIONAL WING. James N. Mueller. March 1953. 52p. diagrs., photos. (NACA RM L52L31)

AERODYNAMIC CHARACTERISTICS AT MACH NUMBER 4.04 OF A RECTANGULAR WING OF ASPECT RATIO 1.33 HAVING A 6-PERCENT-THICK CIRCULAR-ARC PROFILE AND A 30-PERCENT-CHORD FULL-SPAN TRAILING-EDGE FLAP. Robert W. Dunning and Edward F. Ulmann. May 1953. 26p. diagrs., tab. (NACA RM L53D03)

EFFECT OF VARIATIONS IN REYNOLDS NUMBER ON THE AERODYNAMIC CHARACTERISTICS OF THREE BOMB OR STORE SHAPES AT A MACH NUMBER OF 1.62 WITH AND WITHOUT FINS. Robert W. Rainey. June 1953. 40p. diagrs., photos., tab. (NACA RM L53D27)

MEASUREMENTS AND PREDICTIONS OF FLOW CONDITIONS ON A TWO-DIMENSIONAL BASE SEPARATING A MACH NUMBER 3.36 JET AND A MACH NUMBER 1.55 OUTER STREAM. Donald E. Coletti. May 1954. 56p. diagrs., photos. (NACA RM L54C08)

INVESTIGATION OF THE EFFECT OF BALANCING TABS ON THE HINGE-MOMENT CHARACTERISTICS OF A TRAILING-EDGE FLAP-TYPE CONTROL ON A TRAPEZOIDAL WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and Cornelius Driver. August 1954. 23p. diagrs., photo. (NACA RM L54F22)

THE EFFECT OF BASE BLEED ON THE BASE PRESSURE, LIFT, DRAG, AND PITCHING MOMENT OF A 10-PERCENT-THICK BLUNT-BASE AIRFOIL AT A MACH NUMBER OF 2.72. Jim J. Jones. January 1955. 17p. diagrs., photo. (NACA RM L54K10)

INTERFEROMETRIC OBSERVATION OF FLOW ABOUT AN ISENTROPIC (REVERSE PRANDTL-MEYER STREAMLINE) COMPRESSION WEDGE AT MACH 3.0. James F. Connors, Richard R. Woollett, and Robert E. Blue. March 1955. 12p. diagrs., photos. (NACA RM E55A28)

SIMPLIFIED PROCEDURES FOR ESTIMATING FLAP-CONTROL LOADS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1955. 14p. diagrs. (NACA RM L55E12)

(1) AERODYNAMICS

INVESTIGATION OF THE EFFECTS OF MODEL SCALE AND STREAM REYNOLDS NUMBER ON THE AERODYNAMIC CHARACTERISTICS OF TWO RECTANGULAR WINGS AT SUPERSONIC SPEEDS IN THE LANGLEY 9-INCH SUPERSONIC TUNNEL. Donald E. Coletti. June 1955. 32p. diagrs. (NACA RM L55D29)

EXPERIMENTAL DRAG COEFFICIENTS OF ROUND NOSES WITH CONICAL WINDSHIELDS AT MACH NUMBER 2.72. Jim J. Jones. June 1955. 18p. diagrs., photos. (NACA RM L55E10)

AXIALLY SYMMETRIC SHAPES WITH MINIMUM WAVE DRAG. Max. A. Heaslet and Franklyn B. Fuller. 1956. ii, 16p. diagrs. (NACA Rept. 1256. Supersedes TN 3389)

THEORETICAL CALCULATIONS OF THE PRESSURES, FORCES, AND MOMENTS AT SUPERSONIC SPEEDS DUE TO VARIOUS LATERAL MOTIONS ACTING ON THIN ISOLATED VERTICAL TAILS. Kenneth Margolis and Percy J. Bobbitt. 1956. ii, 44p. diagrs., tabs. (NACA Rept. 1268. Supersedes TN 3373; TN 3240)

ON BOATTAIL BODIES OF REVOLUTION HAVING MINIMUM WAVE DRAG. Keith C. Harder and Conrad Rennemann, Jr. 1956. ii, 9p. diagrs., tabs. (NACA Rept. 1271. Supersedes TN 3478)

THE PROPER COMBINATION OF LIFT LOADINGS FOR LEAST DRAG ON A SUPERSONIC WING. Frederick C. Grant. 1956. ii, 9p. diagrs., tab. (NACA Rept. 1275. Supersedes TN 3533)

THEORETICAL INVESTIGATION OF FLUTTER OF TWO-DIMENSIONAL FLAT PANELS WITH ONE SURFACE EXPOSED TO SUPERSONIC POTENTIAL FLOW. Herbert C. Nelson and Herbert J. Cunningham. 1956. ii, 24p. diagrs., tabs. (NACA Rept. 1280. Supersedes TN 3465)

THEORY OF WING-BODY DRAG AT SUPERSONIC SPEEDS. Robert T. Jones. 1956. ii, 7p. diagrs. (NACA Rept. 1284. Supersedes RM A53H18a)

TURBULENT-HEAT-TRANSFER MEASUREMENTS AT A MACH NUMBER OF 3.90. Maurice J. Brevoort. July 1956. 15p. diagrs., tab. (NACA TN 3734)

FINITE SPAN WINGS IN COMPRESSIBLE FLOW. E. A. Krasilshchikova. September 1956. 130p. diagrs. (NACA TM 1383. From: Scientific Records of the Moscow State University, v.154, Mechanics no.4, 1951, with appendix condensed from a document "Modern Problems of Mechanics," Govt. Pub. House of Tech. Theor. Literature, (Moscow, Leningrad) 1952.)

AERODYNAMIC INVESTIGATION OF A PARABOLIC BODY OF REVOLUTION AT MACH NUMBER OF 1.92 AND SOME EFFECTS OF AN ANNULAR SUPERSONIC JET EXHAUSTING FROM THE BASE. Eugene S. Love. September 1956. 62p. diagrs., photos., tab. (NACA TN 3709. Supersedes RM L9K09)

SUPERSONIC FLOW PAST NONLIFTING BUMPED AND INDENTED BODIES OF REVOLUTION. F. Edward McLean and Conrad Rennemann, Jr. September 1956. 39p. diagrs. (NACA TN 3744)

CONVERSION OF INVISCID NORMAL-FORCE COEFFICIENTS IN HELIUM TO EQUIVALENT COEFFICIENTS IN AIR FOR SIMPLE SHAPES AT HYPERSONIC SPEEDS. James N. Mueller. October 1956. 31p. diagrs. (NACA TN 3807)

ON SLENDER-BODY THEORY AND THE AREA RULE AT TRANSONIC SPEEDS. Keith C. Harder and E. B. Klunker. November 1956. 14p. (NACA TN 3815. Supersedes RM L54A29a)

PARTICULAR SOLUTIONS FOR FLOWS AT MACH NUMBER 1. Max. A. Heaslet and Franklyn B. Fuller. November 1956. 32p. diagrs. (NACA TN 3868)

METHOD FOR CALCULATING EFFECTS OF DISSOCIATION ON FLOW VARIABLES IN THE RELAXATION ZONE BEHIND NORMAL SHOCK WAVES. John S. Evans. December 1956. 52p. diagrs., tabs. (NACA TN 3860)

A THEORETICAL INVESTIGATION OF THE DRAG OF GENERALIZED AIRCRAFT CONFIGURATIONS IN SUPERSONIC FLOW. E. W. Graham, P. A. Lagerstrom, R. M. Licher, and B. J. Beane, Douglas Aircraft Company, Inc. January 1957. (iv), 108p. diagrs. (NACA TM 1421)

BASE PRESSURE AT SUPERSONIC SPEEDS ON TWO-DIMENSIONAL AIRFOILS AND ON BODIES OF REVOLUTION WITH AND WITHOUT FINS HAVING TURBULENT BOUNDARY LAYERS. Eugene S. Love. January 1957. 65p. diagrs., photos. (NACA TN 3819. Supersedes RM L53C02)

AERODYNAMIC CHARACTERISTICS OF A CIRCULAR CYLINDER AT MACH NUMBER 6.86 AND ANGLES OF ATTACK UP TO 90°. Jim A. Penland. January 1957. 32p. diagrs., photos. (NACA TN 3861. Supersedes RM L54A14)

THE SIMILARITY RULES FOR SECOND-ORDER SUBSONIC AND SUPERSONIC FLOW. Milton D. Van Dyke. January 1957. 20p. diagrs. (NACA TN 3875)

OBLIQUE-SHOCK RELATIONS AT HYPERSONIC SPEEDS FOR AIR IN CHEMICAL EQUILIBRIUM. W. E. Moeckel. January 1957. 18p. diagrs., tab. (NACA TN 3895)

INVESTIGATION OF VARIATION IN BASE PRESSURE OVER THE REYNOLDS NUMBER RANGE IN WHICH WAKE TRANSITION OCCURS FOR NONLIFTING BODIES OF REVOLUTION AT MACH NUMBERS FROM 1.62 TO 2.62. Vernon Van Hise. January 1957. 41p. diagrs., photo. (NACA TN 3942)

TABLES OF CHARACTERISTIC FUNCTIONS FOR SOLVING BOUNDARY-VALUE PROBLEMS OF THE WAVE EQUATION WITH APPLICATION TO SUPERSONIC INTERFERENCE. Jack N. Nielsen. February 1957. 245p. diagrs., tabs. (NACA TN 3873)

SIDEWASH IN THE VICINITY OF LIFTING SWEPT WINGS AT SUPERSONIC SPEEDS. Percy J. Bobbitt and Peter J. Maxie, Jr. February 1957. 49p. diagrs. (NACA TN 3938)

EXPERIMENTAL INVESTIGATION OF THE FORCES AND MOMENTS DUE TO SIDESLIP OF A SERIES OF TRIANGULAR VERTICAL- AND HORIZONTAL-TAIL COMBINATIONS AT MACH NUMBERS OF 1.62, 1.93, AND 2.41. Donald E. Coletti. March 1957. 32p. diagrs., photo., tabs. (NACA TN 3846. Supersedes RM L54G01)

PRELIMINARY DATA AT A MACH NUMBER OF 2.40 OF THE CHARACTERISTICS OF FLAP-TYPE CONTROLS EQUIPPED WITH PLAIN OVERHANG BALANCES. James N. Mueller and K. R. Czarnecki. March 1957. 43p. diagrs., photos. (NACA TN 3948. Supersedes RM L52F10)

EFFECT OF BLUNTNESS ON TRANSITION FOR A CONE AND A HOLLOW CYLINDER AT MACH 3.1. Paul F. Brinich and Norman Sands. May 1957. 42p. diagrs. (NACA TN 3979)

(1.1.3)
VISCOUS FLOW

AN INVESTIGATION OF FLOW CHARACTERISTICS AT MACH NUMBER 4.04 OVER 6- AND 9-PERCENT-THICK SYMMETRICAL CIRCULAR-ARC AIRFOILS HAVING 30-PERCENT-CHORD TRAILING-EDGE FLAPS. Edward F. Ulmann and Douglas R. Lord. July 1951. 67p. diagrs., photos., tab. (NACA RM L51D30)

PRELIMINARY INVESTIGATION OF USE OF CONICAL FLOW SEPARATION FOR EFFICIENT SUPERSONIC DIFFUSION. W. E. Moeckel and P. J. Evans, Jr. December 1951. 15p. photos., diagrs. (NACA RM E51J08)

OBSERVATIONS OF UNSTEADY FLOW PHENOMENA FOR AN INCLINED BODY FITTED WITH STABILIZING FINS. Merrill H. Mead. January 1952. 23p. diagrs., photos. (NACA RM A51K05)

INVESTIGATION OF SPOILERS AT A MACH NUMBER OF 1.93 TO DETERMINE THE EFFECTS OF HEIGHT AND CHORDWISE LOCATION ON THE SECTION AERODYNAMIC CHARACTERISTICS OF A TWO-DIMENSIONAL WING. James N. Mueller. March 1953. 52p. diagrs., photos. (NACA RM L52L31)

PRESSURE DISTRIBUTIONS ON THREE BODIES OF REVOLUTION TO DETERMINE THE EFFECT OF REYNOLDS NUMBER UP TO AND INCLUDING THE TRANSONIC SPEED RANGE. John M. Swihart and Charles F. Whitcomb. October 1953. 39p. diagrs., photo., tab. (NACA RM L53H04)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. I - SIMILARITY WITH RESPECT TO STATIONARY RECTANGULAR COORDINATES. Arthur G. Hansen and Howard Z. Herzig. October 1956. 30p. tab. (NACA TN 3768)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. II - SIMILARITY WITH RESPECT TO STATIONARY POLAR COORDINATES. Howard Z. Herzig and Arthur G. Hansen. November 1956. 16p. tab. (NACA TN 3832)

STABILITY LIMITS AND BURNING VELOCITIES OF LAMINAR HYDROGEN-AIR FLAMES AT REDUCED PRESSURE. Burton Fine. November 1956. 29p. diagrs., tab. (NACA TN 3833)

ANALYSIS OF PARTICLE MOTIONS FOR A CLASS OF THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. Arthur G. Hansen and Howard Z. Herzig. November 1956. 22p. diagrs., tabs. (NACA TN 3840)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. III - SIMILARITY WITH RESPECT TO STATIONARY POLAR COORDINATES FOR SMALL ANGLE VARIATION. Howard Z. Herzig and Arthur G. Hansen. January 1957. 36p. diagrs., photos., tab. (NACA TN 3890)

INVESTIGATION OF SEPARATED FLOWS IN SUPERSONIC AND SUBSONIC STREAMS WITH EMPHASIS ON THE EFFECT OF TRANSITION. Dean R. Chapman, Donald M. Kuehn, and Howard K. Larson. March 1957. 109p. diagrs., photos. (NACA TN 3869)

PRELIMINARY DATA AT A MACH NUMBER OF 2.40 OF THE CHARACTERISTICS OF FLAP-TYPE CONTROLS EQUIPPED WITH PLAIN OVERHANG BALANCES. James N. Mueller and K. R. Czarnecki. March 1957. 43p. diagrs., photos. (NACA TN 3948. Supersedes RM L52F10)

MEASUREMENTS OF THE NONLINEAR VARIATION WITH TEMPERATURE OF HEAT-TRANSFER RATE FROM HOT WIRES IN TRANSONIC AND SUPERSONIC FLOW. Warren Winovich and Howard A. Stine. April 1957. 33p. diagrs., photo., tab. (NACA TN 3965)

AN INTEGRAL SOLUTION TO THE FLAT-PLATE LAMINAR BOUNDARY-LAYER FLOW EXISTING INSIDE AND AFTER EXPANSION WAVES AND AFTER SHOCK WAVES MOVING INTO QUIESCENT FLUID WITH PARTICULAR APPLICATION TO THE COMPLETE SHOCK-TUBE FLOW. Robert L. Trimpi and Nathaniel B. Cohen. June 1957. ii, 180 p. diagrs., tab. (NACA TN 3944)

(1.1.3.1) LAMINAR FLOW

AERODYNAMICS OF SLENDER BODIES AT MACH NUMBER OF 3.12 AND REYNOLDS NUMBERS FROM 2×10^6 TO 15×10^6. I - BODY OF REVOLUTION WITH NEAR-PARABOLIC FOREBODY AND CYLINDRICAL AFTERBODY. John R. Jack and Warren C. Burgess. November 1951. 47p. diagrs., photos. (NACA RM E51H13)

AERODYNAMIC CHARACTERISTICS OF A SLENDER CONE-CYLINDER BODY OF REVOLUTION AT A MACH NUMBER OF 3.85. John R. Jack. November 1951. 24p. diagrs., photos. (NACA RM E51H17)

EXPERIMENTAL INVESTIGATION OF BOUNDARY-LAYER SUCTION THROUGH SLOTS TO OBTAIN EXTENSIVE LAMINAR BOUNDARY LAYERS ON A 15-PERCENT-THICK AIRFOIL SECTION AT HIGH REYNOLDS NUMBERS. Laurence K. Loftin, Jr., and Elmer A. Horton. June 1952. 38p. diagrs., photos., tabs. (NACA RM L52D02)

FREE-STREAM BOUNDARIES OF TURBULENT FLOWS. Stanley Corrsin and Alan L. Kistler, Johns Hopkins University. 1955. ii, 32p. diagrs., photos. (NACA Rept. 1244. Supersedes TN 3133)

ANALYSIS AND CALCULATION BY INTEGRAL METHODS OF LAMINAR COMPRESSIBLE BOUNDARY LAYER WITH HEAT TRANSFER AND WITH AND WITHOUT PRESSURE GRADIENT. Morris Morduchow, Polytechnic Institute of Brooklyn. 1955. ii, 19p. diagrs., tabs. (NACA Rept. 1245)

LIFT HYSTERESIS AT STALL AS AN UNSTEADY BOUNDARY-LAYER PHENOMENON. Franklin K. Moore. 1956. ii, 10p. diagrs., tab. (NACA Rept. 1291. Supersedes TN 3571)

SIMILAR SOLUTIONS FOR THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER AND PRESSURE GRADIENT. Clarence B. Cohen and Eli Reshotko. 1956. ii, 38p. diagrs., tabs. (NACA Rept. 1293. Supersedes TN 3325)

THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER AND ARBITRARY PRESSURE GRADIENT. Clarence B. Cohen and Eli Reshotko. 1956. ii, 16p. diagrs., tabs. (NACA Rept. 1294. Supersedes TN 3326)

INVESTIGATION OF THE LAMINAR AERODYNAMIC HEAT-TRANSFER CHARACTERISTICS OF A HEMISPHERE-CYLINDER IN THE LANGLEY 11-INCH HYPERSONIC TUNNEL AT A MACH NUMBER OF 6.8. Davis H. Crawford and William D. McCauley. July 1956. 38p. diagrs., photos. (NACA TN 3706)

ATTENUATION IN A SHOCK TUBE DUE TO UNSTEADY-BOUNDARY-LAYER ACTION. Harold Mirels. August 1956. 60p. diagrs. (NACA TN 3278)

ANALYSIS OF LAMINAR INCOMPRESSIBLE FLOW IN SEMIPOROUS CHANNELS. Patrick L. Donoughe. August 1956. 25p. diagrs., tabs. (NACA TN 3759)

MEASUREMENTS OF BOUNDARY-LAYER TRANSITION AT LOW SPEED ON TWO BODIES OF REVOLUTION IN A LOW-TURBULENCE WIND TUNNEL. Frederick W. Boltz, George C. Kenyon, and Clyde Q. Allen. September 1956. 14p. diagrs., photos., tabs. (NACA RM A56G17)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. I - SIMILARITY WITH RESPECT TO STATIONARY RECTANGULAR COORDINATES. Arthur G. Hansen and Howard Z. Herzig. October 1956. 30p. tab. (NACA TN 3768)

HEAT-TRANSFER MEASUREMENTS ON TWO BODIES OF REVOLUTION AT A MACH NUMBER OF 3.12. John R. Jack and N. S. Diaconis. October 1956. 36p. diagrs., photos., tabs. (NACA TN 3776)

A THEORETICAL ANALYSIS OF HEAT TRANSFER IN REGIONS OF SEPARATED FLOW. Dean R. Chapman. October 1956. 47p. diagrs., tabs. (NACA TN 3792)

A FACTOR AFFECTING TRANSONIC LEADING-EDGE FLOW SEPARATION. George P. Wood and Paul B. Gooderum. October 1956. 43p. diagrs., photos. (NACA TN 3804)

A LOW-SPEED EXPERIMENTAL INVESTIGATION OF THE EFFECT OF A SANDPAPER TYPE OF ROUGHNESS ON BOUNDARY-LAYER TRANSITION. Albert E. von Doenhoff and Elmer A. Horton. October 1956. 45p. diagrs., photos. (NACA TN 3858) CORRECTED COPY

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. II - SIMILARITY WITH RESPECT TO STATIONARY POLAR COORDINATES. Howard Z. Herzig and Arthur G. Hansen. November 1956. 16p. tab. (NACA TN 3832)

ANALYSIS OF PARTICLE MOTIONS FOR A CLASS OF THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. Arthur G. Hansen and Howard Z. Herzig. November 1956. 22p. diagrs., tabs. (NACA TN 3840)

AVERAGE PROPERTIES OF COMPRESSIBLE LAMINAR BOUNDARY LAYER ON FLAT PLATE WITH UNSTEADY FLIGHT VELOCITY. Franklin K. Moore and Simon Ostrach. December 1956. 35p. diagrs., tabs. (NACA TN 3886)

SIMPLIFIED METHOD FOR ESTIMATING COMPRESSIBLE LAMINAR HEAT TRANSFER WITH PRESSURE GRADIENT. Eli Reshotko. December 1956. 16p. diagrs. (NACA TN 3888)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. III - SIMILARITY WITH RESPECT TO STATIONARY POLAR COORDINATES FOR SMALL ANGLE VARIATION. Howard Z. Herzig and Arthur G. Hansen. January 1957. 36p. diagrs., photos., tab. (NACA TN 3890)

BOUNDARY-LAYER TRANSITION AT MACH 3.12 AS AFFECTED BY COOLING AND NOSE BLUNTING. N. S. Diaconis, John R. Jack, and Richard J. Wisniewski. January 1957. 17p. diagrs., photos. (NACA TN 3928)

INVESTIGATION OF VARIATION IN BASE PRESSURE OVER THE REYNOLDS NUMBER RANGE IN WHICH WAKE TRANSITION OCCURS FOR NONLIFTING BODIES OF REVOLUTION AT MACH NUMBERS FROM 1.62 TO 2.62. Vernon Van Hise. January 1957. 41p. diagrs., photo. (NACA TN 3942)

INVESTIGATION OF SEPARATED FLOWS IN SUPERSONIC AND SUBSONIC STREAMS WITH EMPHASIS ON THE EFFECT OF TRANSITION. Dean R. Chapman, Donald M. Kuehn, and Howard K. Larson. March 1957. 109p. diagrs., photos. (NACA TN 3869)

AN INVESTIGATION AT LOW SPEED OF THE FLOW OVER A SIMULATED FLAT PLATE AT SMALL ANGLES OF ATTACK USING PITOT-STATIC AND HOT-WIRE PROBES. Donald E. Gault. March 1957. 58p. diagrs., photos., tabs. (NACA TN 3876)

FURTHER EXPERIMENTS ON THE STABILITY OF LAMINAR AND TURBULENT HYDROGEN-AIR FLAMES AT REDUCED PRESSURES. Burton Fine. April 1957. 31p. diagrs., tabs. (NACA TN 3977)

A THEORETICAL STUDY OF THE EFFECT OF UPSTREAM TRANSPIRATION COOLING ON THE HEAT-TRANSFER AND SKIN-FRICTION CHARACTERISTICS OF A COMPRESSIBLE, LAMINAR BOUNDARY LAYER. Morris W. Rubesin and Mamoru Inouye. May 1957. 41p. diagrs., tab. (NACA TN 3969)

EFFECT OF BLUNTNESS ON TRANSITION FOR A CONE AND A HOLLOW CYLINDER AT MACH 3.1. Paul F. Brinich and Norman Sands. May 1957. 42p. diagrs. (NACA TN 3979)

NONUNIFORMITIES IN SHOCK-TUBE FLOW DUE TO UNSTEADY-BOUNDARY-LAYER ACTION. Harold Mirels and W. H. Braun. May 1957. 45p. diagrs. (NACA TN 4021)

A POWER-SERIES SOLUTION FOR THE UNSTEADY LAMINAR BOUNDARY-LAYER FLOW IN AN EXPANSION WAVE OF FINITE WIDTH MOVING THROUGH A GAS INITIALLY AT REST. Nathaniel B. Cohen. June 1957. 56p. diagrs., tabs. (NACA TN 3943)

AN INTEGRAL SOLUTION TO THE FLAT-PLATE LAMINAR BOUNDARY-LAYER FLOW EXISTING INSIDE AND AFTER EXPANSION WAVES AND AFTER SHOCK WAVES MOVING INTO QUIESCENT FLUID WITH PARTICULAR APPLICATION TO THE COMPLETE SHOCK-TUBE FLOW. Robert L. Trimpi and Nathaniel B. Cohen. June 1957. ii, 180 p. diagrs., tab. (NACA TN 3944)

COMPRESSIBLE LAMINAR BOUNDARY LAYER OVER A YAWED INFINITE CYLINDER WITH HEAT TRANSFER AND ARBITRARY PRANDTL NUMBER. Eli Reshotko and Ivan E. Beckwith. June 1957. (i), 86p. diagrs., tabs. (NACA TN 3986)

ESTIMATION OF COMPRESSIBLE BOUNDARY-LAYER GROWTH OVER INSULATED SURFACES WITH PRESSURE GRADIENT. Gerald W. Englert. June 1957. 35p. diagrs. (NACA TN 4022)

(1.1.3.2) TURBULENT FLOW

AERODYNAMICS OF SLENDER BODIES AT MACH NUMBER OF 3.12 AND REYNOLDS NUMBERS FROM 2×10^6 TO 15×10^6. I - BODY OF REVOLUTION WITH NEAR-PARABOLIC FOREBODY AND CYLINDRICAL AFTERBODY. John R. Jack and Warren C. Burgess. November 1951. 47p. diagrs., photos. (NACA RM E51H13)

THE INFLUENCE OF VORTEX GENERATORS ON THE PERFORMANCE OF A SHORT 1.9:1 STRAIGHT-WALL ANNULAR DIFFUSER WITH A WHIRLING INLET FLOW. Charles C. Wood and James T. Higginbotham. February 1953. 38p. diagrs., photo., tab. (NACA RM L52L01a)

PERFORMANCE CHARACTERISTICS OF A 24° STRAIGHT-OUTER-WALL ANNULAR-DIFFUSER-TAILPIPE COMBINATION UTILIZING RECTANGULAR VORTEX GENERATORS FOR FLOW CONTROL. Charles C. Wood and James T. Higginbotham. October 1953. 33p. diagrs., tabs. (NACA RM L53H17a)

MEASUREMENTS AND PREDICTIONS OF FLOW CONDITIONS ON A TWO-DIMENSIONAL BASE SEPARATING A MACH NUMBER 3.36 JET AND A MACH NUMBER 1.55 OUTER STREAM. Donald E. Coletti. May 1954. 56p. diagrs., photos. (NACA RM L54C08)

EFFECTS OF DIFFUSER AND CENTER-BODY LENGTH ON PERFORMANCE OF ANNULAR DIFFUSERS WITH CONSTANT-DIAMETER OUTER WALLS AND WITH VORTEX-GENERATOR FLOW CONTROLS. Charles C. Wood and James T. Higginbotham. September 1954. 39p. diagrs., photo., tab. (NACA RM L54G21)

(1) AERODYNAMICS

FREE-STREAM BOUNDARIES OF TURBULENT FLOWS. Stanley Corrsin and Alan L. Kistler, Johns Hopkins University. 1955. ii, 32p. diagrs., photos. (NACA Rept. 1244. Supersedes TN 3133)

CHARACTERISTICS OF TURBULENCE IN A BOUNDARY LAYER WITH ZERO PRESSURE GRADIENT. P. S. Klebanoff, National Bureau of Standards. 1955. ii, 19p. diagrs. (NACA Rept. 1247. Supersedes TN 3178)

INVESTIGATION OF TWO SHORT ANNULAR DIFFUSER CONFIGURATIONS UTILIZING SUCTION AND INJECTION AS A MEANS OF BOUNDARY-LAYER CONTROL. Stafford W. Wilbur and James T. Higginbotham. January 1955. 43p. diagrs. (NACA RM L54K18)

TURBULENT CONVECTIVE HEAT-TRANSFER COEFFICIENTS MEASURED FROM FLIGHT TESTS OF FOUR RESEARCH MODELS (NACA RM-10) AT MACH NUMBERS FROM 1.0 TO 3.6. Leo T. Chauvin and Joseph P. Maloney. March 1955. 30p. diagrs., photo., tabs. (NACA RM L54L15)

PROPAGATION OF A FREE FLAME IN A TURBULENT GAS STREAM. William R. Mickelsen and Norman E. Ernstein. 1956. ii, 26p. diagrs., photos., tabs. (NACA Rept. 1286. Supersedes TN 3456)

INTENSITY, SCALE, AND SPECTRA OF TURBULENCE IN MIXING REGION OF FREE SUBSONIC JET. James C. Laurence. 1956. ii, 27p. diagrs., photo., tab. (NACA Rept. 1292. Supersedes TN 3561; TN 3576)

TURBULENT-HEAT-TRANSFER MEASUREMENTS AT A MACH NUMBER OF 3.90. Maurice J. Brevoort. July 1956. 15p. diagrs., tab. (NACA TN 3734)

ATTENUATION IN A SHOCK TUBE DUE TO UNSTEADY-BOUNDARY-LAYER ACTION. Harold Mirels. August 1956. 60p. diagrs. (NACA TN 3278)

MEASUREMENTS OF BOUNDARY-LAYER TRANSITION AT LOW SPEED ON TWO BODIES OF REVOLUTION IN A LOW-TURBULENCE WIND TUNNEL. Frederick W. Boltz, George C. Kenyon, and Clyde Q. Allen. September 1956. 14p. diagrs., photos., tabs. (NACA RM A56G17)

TURBULENT SHEAR SPECTRA AND LOCAL ISOTROPY IN THE LOW-SPEED BOUNDARY LAYER. Virgil A. Sandborn and Willis H. Braun. September 1956. 34p. diagrs. (NACA TN 3761)

HEAT-TRANSFER MEASUREMENTS ON TWO BODIES OF REVOLUTION AT A MACH NUMBER OF 3.12. John R. Jack and N. S. Diaconis. October 1956. 36p. diagrs., photos., tabs. (NACA TN 3776)

A FACTOR AFFECTING TRANSONIC LEADING-EDGE FLOW SEPARATION. George P. Wood and Paul B. Gooderum. October 1956. 43p. diagrs., photos. (NACA TN 3804)

CHARTS ADAPTED FROM VAN DRIEST'S TURBULENT FLAT-PLATE THEORY FOR DETERMINING VALUES OF TURBULENT AERODYNAMIC FRICTION AND HEAT-TRANSFER COEFFICIENTS. Dorothy B. Lee and Maxime A. Faget. October 1956. 16p. diagrs., tab. (NACA TN 3811)

A LOW-SPEED EXPERIMENTAL INVESTIGATION OF THE EFFECT OF A SANDPAPER TYPE OF ROUGHNESS ON BOUNDARY-LAYER TRANSITION. Albert E. von Doenhoff and Elmer A. Horton. October 1956. 45p. diagrs., photos. (NACA TN 3858) CORRECTED COPY

GROWTH OF DISTURBANCES IN A FLAME-GENERATED SHEAR REGION. Perry L. Blackshear, Jr. November 1956. iv, 148p. diagrs., photos., tabs. (NACA TN 3830)

ON THE CONTRIBUTION OF TURBULENT BOUNDARY LAYERS TO THE NOISE INSIDE A FUSELAGE. G. M. Corcos and H. W. Liepmann, Douglas Aircraft Company, Inc. December 1956. (iii), 43p. diagrs. (NACA TM 1420)

BASE PRESSURE AT SUPERSONIC SPEEDS ON TWO-DIMENSIONAL AIRFOILS AND ON BODIES OF REVOLUTION WITH AND WITHOUT FINS HAVING TURBULENT BOUNDARY LAYERS. Eugene S. Love. January 1957. 65p. diagrs., photos. (NACA TN 3819. Supersedes RM L53C02)

BOUNDARY-LAYER TRANSITION AT MACH 3.12 AS AFFECTED BY COOLING AND NOSE BLUNTING. N. S. Diaconis, John R. Jack, and Richard J. Wisniewski. January 1957. 17p. diagrs., photos. (NACA TN 3928)

INVESTIGATION OF VARIATION IN BASE PRESSURE OVER THE REYNOLDS NUMBER RANGE IN WHICH WAKE TRANSITION OCCURS FOR NONLIFTING BODIES OF REVOLUTION AT MACH NUMBERS FROM 1.62 TO 2.62. Vernon Van Hise. January 1957. 41p. diagrs., photo. (NACA TN 3942)

INVESTIGATION OF SEPARATED FLOWS IN SUPERSONIC AND SUBSONIC STREAMS WITH EMPHASIS ON THE EFFECT OF TRANSITION. Dean R. Chapman, Donald M. Kuehn, and Howard K. Larson. March 1957. 109p. diagrs., photos. (NACA TN 3869)

AN INVESTIGATION AT LOW SPEED OF THE FLOW OVER A SIMULATED FLAT PLATE AT SMALL ANGLES OF ATTACK USING PITOT-STATIC AND HOT-WIRE PROBES. Donald E. Gault. March 1957. 58p. diagrs., photos., tabs. (NACA TN 3876)

FURTHER EXPERIMENTS ON THE STABILITY OF LAMINAR AND TURBULENT HYDROGEN-AIR FLAMES AT REDUCED PRESSURES. Burton Fine. April 1957. 31p. diagrs., tabs. (NACA TN 3977)

CHARTS FOR THE ANALYSIS OF FLOW IN A WHIRLING DUCT. Robert A. Makofski. May 1957. 21p. diagrs. (NACA TN 3950)

EFFECT OF BLUNTNESS ON TRANSITION FOR A CONE AND A HOLLOW CYLINDER AT MACH 3.1. Paul F. Brinich and Norman Sands. May 1957. 42p. diagrs. (NACA TN 3979)

NONUNIFORMITIES IN SHOCK-TUBE FLOW DUE TO UNSTEADY-BOUNDARY-LAYER ACTION. Harold Mirels and W. H. Braun. May 1957. 45p. diagrs. (NACA TN 4021)

ESTIMATION OF COMPRESSIBLE BOUNDARY-LAYER GROWTH OVER INSULATED SURFACES WITH PRESSURE GRADIENT. Gerald W. Englert. June 1957. 35p. diagrs. (NACA TN 4022)

(1.1.3.3)
JET MIXING

NOTE ON SOME OBSERVED EFFECTS OF ROCKET-MOTOR OPERATION ON THE BASE PRESSURES OF BODIES IN FREE FLIGHT. Paul E. Purser, Joseph G. Thibodaux, and H. Herbert Jackson. November 16, 1950. 28p. diagrs., tabs. (NACA RM L50I18)

JET EFFECTS ON PRESSURES AND DRAGS OF BODIES. Warren Gillespie, Jr. November 1951. 12p. diagrs. (NACA RM L51J29)

FLIGHT MEASUREMENTS OF PRESSURES ON BASE AND REAR PART OF FUSELAGE OF THE BELL X-1 RESEARCH AIRPLANE AT TRANSONIC SPEEDS, INCLUDING POWER EFFECTS. Ronald J. Knapp and Wallace E. Johnson. January 1953. 31p. diagrs., photos. (NACA RM L52L01)

MEASUREMENTS AND PREDICTIONS OF FLOW CONDITIONS ON A TWO-DIMENSIONAL BASE SEPARATING A MACH NUMBER 3.36 JET AND A MACH NUMBER 1.55 OUTER STREAM. Donald E. Coletti. May 1954. 56p. diagrs., photos. (NACA RM L54C08)

INVESTIGATION OF THE JET EFFECTS ON A FLAT SURFACE DOWNSTREAM OF THE EXIT OF A SIMULATED TURBOJET NACELLE AT A FREE-STREAM MACH NUMBER OF 2.02. Walter E. Bressette. June 1954. 38p. diagrs., photos., tab. (NACA RM L54E05a)

AN INVESTIGATION OF JET EFFECTS ON ADJACENT SURFACES. Walter E. Bressette and Maxime A. Faget. June 1955. 13p. diagrs. (NACA RM L55E06)

THE NEAR NOISE FIELD OF STATIC JETS AND SOME MODEL STUDIES OF DEVICES FOR NOISE REDUCTION. Leslie W. Lassiter and Harvey H. Hubbard. 1956. i, 12p. diagrs., photos. (NACA Rept. 1261. Supersedes TN 3187)

INTENSITY, SCALE, AND SPECTRA OF TURBULENCE IN MIXING REGION OF FREE SUBSONIC JET. James C. Laurence. 1956. ii, 27p. diagrs., photo., tab. (NACA Rept. 1292. Supersedes TN 3561; TN 3576)

AERODYNAMIC INVESTIGATION OF A PARABOLIC BODY OF REVOLUTION AT MACH NUMBER OF 1.92 AND SOME EFFECTS OF AN ANNULAR SUPERSONIC JET EXHAUSTING FROM THE BASE. Eugene S. Love. September 1956. 62p. diagrs., photos., tab. (NACA TN 3709. Supersedes RM L9K09)

NEAR NOISE FIELD OF A JET-ENGINE EXHAUST. I - SOUND PRESSURES. Walton L. Howes and Harold R. Mull. October 1956. 51p. diagrs., photos. (NACA TN 3763)

A THEORETICAL ANALYSIS OF HEAT TRANSFER IN REGIONS OF SEPARATED FLOW. Dean R. Chapman. October 1956. 47p. diagrs., tabs. (NACA TN 3792)

SPREADING CHARACTERISTICS OF A JET EXPANDING FROM CHOKED NOZZLES AT MACH 1.91. Morris D. Rousso and L. Eugene Baughman. December 1956. 27p. diagrs., photos. (NACA TN 3836. Supersedes RM E51L19)

THE EFFECT OF SOLID ADMIXTURES ON THE VELOCITY OF MOTION OF A FREE DUSTY AIR JET. (K Voprosu o Vliyanii Tverdykh Primecei na Skorost' Dvizheniya Svobodnoi Pylevozdushnoi Strui). A. P. Chernov. April 1957. 7p. diagr. (NACA TM 1430. Translation from Zhurnal Tekhnicheskoi Fiziki, v. 26, no. 5, 1956, p. 1060-1063)

FULL-SCALE INVESTIGATION OF SEVERAL JET-ENGINE NOISE-REDUCTION NOZZLES. Willard D. Coles and Edmund E. Callaghan. April 1957. 45p. diagrs., photos., tabs. (NACA TN 3974)

SURVEY OF THE ACOUSTIC NEAR FIELD OF THREE NOZZLES AT A PRESSURE RATIO OF 30. Harold R. Mull and John C. Erickson, Jr. April 1957. 32p. diagrs., photos. (NACA TN 3978)

(1.1.4)
AERODYNAMICS WITH HEAT

A STUDY OF THE MOTION AND AERODYNAMIC HEATING OF MISSILES ENTERING THE EARTH'S ATMOSPHERE AT HIGH SUPERSONIC SPEEDS. H. Julian Allen and A. J. Eggers, Jr. August 1953. 62p. diagrs., photo. (NACA RM A53D28)

ANALYSIS AND CALCULATION BY INTEGRAL METHODS OF LAMINAR COMPRESSIBLE BOUNDARY LAYER WITH HEAT TRANSFER AND WITH AND WITHOUT PRESSURE GRADIENT. Morris Morduchow, Polytechnic Institute of Brooklyn. 1955. ii, 19p. diagrs., tabs. (NACA Rept. 1245)

(1) AERODYNAMICS

A METHOD FOR SIMULATING THE ATMOSPHERIC ENTRY OF LONG-RANGE BALLISTIC MISSILES. A. J. Eggers, Jr. December 1955. 19p. diagr. (NACA RM A55I15)

MECHANISM OF GENERATION OF PRESSURE WAVES AT FLAME FRONTS. Boa-Teh Chu, Johns Hopkins University. October 1956. 20p. diagrs. (NACA TN 3683)

HEAT-TRANSFER MEASUREMENTS ON TWO BODIES OF REVOLUTION AT A MACH NUMBER OF 3.12. John R. Jack and N. S. Diaconis. October 1956. 36p. diagrs., photos., tabs. (NACA TN 3776)

BOUNDARY-LAYER TRANSITION AT MACH 3.12 AS AFFECTED BY COOLING AND NOSE BLUNTING. N. S. Diaconis, John R. Jack, and Richard J. Wisniewski. January 1957. 17p. diagrs., photos. (NACA TN 3928)

A NOTE ON THE EFFECT OF HEAT TRANSFER ON PEAK PRESSURE RISE ASSOCIATED WITH SEPARATION OF TURBULENT BOUNDARY LAYER ON A BODY OF REVOLUTION (NACA RM-10) AT A MACH NUMBER OF 1.61. K. R. Czarnecki and Archibald R. Sinclair. April 1957. 13p. diagrs., photos. (NACA TN 3997)

THERMODYNAMIC STUDY OF A ROOTS COMPRESSOR AS A SOURCE OF HIGH-TEMPERATURE AIR. Clarence B. Cohen, Richard R. Woollett, and Kenneth C. Weston. June 1957. 34p. diagrs., tab. (NACA TN 4025)

(1.1.4.1) HEATING

A STUDY OF THE MOTION AND AERODYNAMIC HEATING OF MISSILES ENTERING THE EARTH'S ATMOSPHERE AT HIGH SUPERSONIC SPEEDS. H. Julian Allen and A. J. Eggers, Jr. August 1953. 62p. diagrs., photo. (NACA RM A53D28)

INVESTIGATION OF THE LAMINAR AERODYNAMIC HEAT-TRANSFER CHARACTERISTICS OF A HEMISPHERE-CYLINDER IN THE LANGLEY 11-INCH HYPERSONIC TUNNEL AT A MACH NUMBER OF 6.8. Davis H. Crawford and William D. McCauley. July 1956. 38p. diagrs., photos. (NACA TN 3706)

A THEORETICAL ANALYSIS OF HEAT TRANSFER IN REGIONS OF SEPARATED FLOW. Dean R. Chapman. October 1956. 47p. diagrs., tabs. (NACA TN 3792)

THE EROSION OF METEORS AND HIGH-SPEED VEHICLES IN THE UPPER ATMOSPHERE. C. Frederick Hansen. March 1957. 38p. diagrs., tab. (NACA TN 3962)

MEASUREMENTS OF THE NONLINEAR VARIATION WITH TEMPERATURE OF HEAT-TRANSFER RATE FROM HOT WIRES IN TRANSONIC AND SUPERSONIC FLOW. Warren Winovich and Howard A. Stine. April 1957. 33p. diagrs., photo., tab. (NACA TN 3965)

INTERACTION OF MOVING SHOCKS AND HOT LAYERS. Robert V. Hess. May 1957. 65p. diagrs. (NACA TN 4002)

TWO FACTORS INFLUENCING TEMPERATURE DISTRIBUTIONS AND THERMAL STRESSES IN STRUCTURES. William A. Brooks, Jr., George E. Griffith, and H. Kurt Strass. June 1957. 13p. diagrs. (NACA TN 4052)

(1.1.4.2) HEAT TRANSFER

AIR-FLOW CHARACTERISTICS OF BRAZED AND ROLLED WIRE FILTER CLOTH FOR TRANSPIRATION-COOLED AFTERBURNERS. William K. Koffel. October 1953. 55p. diagrs., photos., tabs. (NACA RM E53H24)

TURBULENT CONVECTIVE HEAT-TRANSFER COEFFICIENTS MEASURED FROM FLIGHT TESTS OF FOUR RESEARCH MODELS (NACA RM-10) AT MACH NUMBERS FROM 1.0 TO 3.6. Leo T. Chauvin and Joseph P. Maloney. March 1955. 30p. diagrs., photo., tabs. (NACA RM L54L15)

AN INVESTIGATION OF JET EFFECTS ON ADJACENT SURFACES. Walter E. Bressette and Maxime A. Faget. June 1955. 13p. diagrs. (NACA RM L55E06)

SIMILAR SOLUTIONS FOR THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER AND PRESSURE GRADIENT. Clarence B. Cohen and Eli Reshotko. 1956. ii, 38p. diagrs., tabs. (NACA Rept. 1293. Supersedes TN 3325)

THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER AND ARBITRARY PRESSURE GRADIENT. Clarence B. Cohen and Eli Reshotko. 1956. ii, 16p. diagrs., tabs. (NACA Rept. 1294. Supersedes TN 3326)

INVESTIGATION OF THE LAMINAR AERODYNAMIC HEAT-TRANSFER CHARACTERISTICS OF A HEMISPHERE-CYLINDER IN THE LANGLEY 11-INCH HYPERSONIC TUNNEL AT A MACH NUMBER OF 6.8. Davis H. Crawford and William D. McCauley. July 1956. 38p. diagrs., photos. (NACA TN 3706)

TURBULENT-HEAT-TRANSFER MEASUREMENTS AT A MACH NUMBER OF 3.90. Maurice J. Brevoort. July 1956. 15p. diagrs., tab. (NACA TN 3734)

AERODYNAMIC MIXING DOWNSTREAM FROM LINE SOURCE OF HEAT IN HIGH-INTENSITY SOUND FIELD. William R. Mickelsen and Lionel V. Baldwin. August 1956. (ii), 75p. diagrs., photos. (NACA TN 3760)

RADIATION AND RECOVERY CORRECTIONS AND TIME CONSTANTS OF SEVERAL CHROMEL-ALUMEL THERMOCOUPLE PROBES IN HIGH-TEMPERATURE, HIGH-VELOCITY GAS STREAMS. George E. Glawe, Frederick S. Simmons, and Truman M. Stickney. October 1956. 25p. diagrs., photo., tabs. (NACA TN 3766)

HEAT-TRANSFER MEASUREMENTS ON TWO BODIES OF REVOLUTION AT A MACH NUMBER OF 3.12. John R. Jack and N. S. Diaconis. October 1956. 36p. diagrs., photos., tabs. (NACA TN 3776)

A THEORETICAL ANALYSIS OF HEAT TRANSFER IN REGIONS OF SEPARATED FLOW. Dean R. Chapman. October 1956. 47p. diagrs., tabs. (NACA TN 3792)

CHARTS ADAPTED FROM VAN DRIEST'S TURBULENT FLAT-PLATE THEORY FOR DETERMINING VALUES OF TURBULENT AERODYNAMIC FRICTION AND HEAT-TRANSFER COEFFICIENTS. Dorothy B. Lee and Maxime A. Faget. October 1956. 16p. diagrs., tab. (NACA TN 3811)

INVESTIGATION OF HEAT TRANSFER FROM A STATIONARY AND ROTATING ELLIPSOIDAL FOREBODY OF FINENESS RATIO 3. James P. Lewis and Robert S. Ruggeri. November 1956. 46p. diagrs., photo., tabs. (NACA TN 3837)

AVERAGE PROPERTIES OF COMPRESSIBLE LAMINAR BOUNDARY LAYER ON FLAT PLATE WITH UNSTEADY FLIGHT VELOCITY. Franklin K. Moore and Simon Ostrach. December 1956. 35p. diagrs., tabs. (NACA TN 3886)

THEORY AND DESIGN OF A PNEUMATIC TEMPERATURE PROBE AND EXPERIMENTAL RESULTS OBTAINED IN A HIGH-TEMPERATURE GAS STREAM. Frederick S. Simmons and George E. Glawe. January 1957. 41p. diagrs., photo. (NACA TN 3893)

BOUNDARY-LAYER TRANSITION AT MACH 3.12 AS AFFECTED BY COOLING AND NOSE BLUNTING. N. S. Diaconis, John R. Jack, and Richard J. Wisniewski. January 1957. 17p. diagrs., photos. (NACA TN 3928)

MEASUREMENTS OF THE NONLINEAR VARIATION WITH TEMPERATURE OF HEAT-TRANSFER RATE FROM HOT WIRES IN TRANSONIC AND SUPERSONIC FLOW. Warren Winovich and Howard A. Stine. April 1957. 33p. diagrs., photo., tab. (NACA TN 3965)

EXPERIMENTAL STUDY OF HEAT TRANSFER TO SMALL CYLINDERS IN A SUBSONIC, HIGH-TEMPERATURE GAS STREAM. George E. Glawe and Robert C. Johnson. APPENDIX C: METHOD USED TO COMPUTE VISCOSITY AND THERMAL CONDUCTIVITY OF COMBUSTION GAS MIXTURES. Richard S. Brokaw and Robert C. Johnson. May 1957. 21p. diagrs., photo. (NACA TN 3934)

CHARTS FOR THE ANALYSIS OF FLOW IN A WHIRLING DUCT. Robert A. Makofski. May 1957. 21p. diagrs. (NACA TN 3950)

A THEORETICAL STUDY OF THE EFFECT OF UPSTREAM TRANSPIRATION COOLING ON THE HEAT-TRANSFER AND SKIN-FRICTION CHARACTERISTICS OF A COMPRESSIBLE, LAMINAR BOUNDARY LAYER. Morris W. Rubesin and Mamoru Inouye. May 1957. 41p. diagrs., tab. (NACA TN 3969)

ON FLOW OF ELECTRICALLY CONDUCTING FLUIDS OVER A FLAT PLATE IN THE PRESENCE OF A TRANSVERSE MAGNETIC FIELD. Vernon J. Rossow. May 1957. 54p. tabs. (NACA TN 3971)

AN INTEGRAL SOLUTION TO THE FLAT-PLATE LAMINAR BOUNDARY-LAYER FLOW EXISTING INSIDE AND AFTER EXPANSION WAVES AND AFTER SHOCK WAVES MOVING INTO QUIESCENT FLUID WITH PARTICULAR APPLICATION TO THE COMPLETE SHOCK-TUBE FLOW. Robert L. Trimpi and Nathaniel B. Cohen. June 1957. ii, 180 p. diagrs., tab. (NACA TN 3944)

COMPRESSIBLE LAMINAR BOUNDARY LAYER OVER A YAWED INFINITE CYLINDER WITH HEAT TRANSFER AND ARBITRARY PRANDTL NUMBER. Eli Reshotko and Ivan E. Beckwith. June 1957. (i), 86p. diagrs., tabs. (NACA TN 3986)

(1.1.4.3) ADDITIONS OF HEAT

INTERACTION OF A FREE FLAME FRONT WITH A TURBULENCE FIELD. Maurice Tucker. 1956. ii, 19p. diagrs., tabs. (NACA Rept. 1277. Supersedes TN 3407)

AN ANALYSIS OF BUZZING IN SUPERSONIC RAM JETS BY A MODIFIED ONE-DIMENSIONAL NONSTATIONARY WAVE THEORY. Robert L. Trimpi. July 1956. 72p. diagrs., photos. (NACA TN 3695. Supersedes RM L52A18)

INVESTIGATION OF THE LAMINAR AERODYNAMIC HEAT-TRANSFER CHARACTERISTICS OF A HEMISPHERE-CYLINDER IN THE LANGLEY 11-INCH HYPERSONIC TUNNEL AT A MACH NUMBER OF 6.8. Davis H. Crawford and William D. McCauley. July 1956. 38p. diagrs., photos. (NACA TN 3706)

ATTENUATION IN A SHOCK TUBE DUE TO UNSTEADY-BOUNDARY-LAYER ACTION. Harold Mirels. August 1956. 60p. diagrs. (NACA TN 3278)

GROWTH OF DISTURBANCES IN A FLAME-GENERATED SHEAR REGION. Perry L. Blackshear, Jr. November 1956. iv, 148p. diagrs., photos., tabs. (NACA TN 3830)

(1.1.5) FLOW OF RAREFIED GASES

(1.1.5.1) SLIP FLOW

PROBLEM OF SLIP FLOW IN AERODYNAMICS. Robert E. Street, University of Washington. March 1957. 29p. (NACA RM 57A30)

(1.1.5.2) FREE MOLECULE FLOW

THE EROSION OF METEORS AND HIGH-SPEED VEHICLES IN THE UPPER ATMOSPHERE. C. Frederick Hansen. March 1957. 38p. diagrs., tab. (NACA TN 3962)

(1.1.6) TIME-DEPENDENT FLOW

A POWER-SERIES SOLUTION FOR THE UNSTEADY LAMINAR BOUNDARY-LAYER FLOW IN AN EXPANSION WAVE OF FINITE WIDTH MOVING THROUGH A GAS INITIALLY AT REST. Nathaniel B. Cohen. June 1957. 56p. diagrs., tabs. (NACA TN 3943)

AN INTEGRAL SOLUTION TO THE FLAT-PLATE LAMINAR BOUNDARY-LAYER FLOW EXISTING INSIDE AND AFTER EXPANSION WAVES AND AFTER SHOCK WAVES MOVING INTO QUIESCENT FLUID WITH PARTICULAR APPLICATION TO THE COMPLETE SHOCK-TUBE FLOW. Robert L. Trimpi and Nathaniel B. Cohen. June 1957. ii, 180 p. diagrs., tab. (NACA TN 3944)

(1.2) Wings

PRELIMINARY ESTIMATE OF PERFORMANCE OF A TURBOJET ENGINE WHEN INLET PRESSURE IS REDUCED BELOW EXHAUST PRESSURE. H. D. Wilsted and W. D. Stemples. February 18, 1948. 42p. diagrs. (NACA RM E7I30)

FLIGHT INVESTIGATION AT MACH NUMBERS FROM 0.8 TO 1.4 TO DETERMINE THE ZERO-LIFT DRAG OF WINGS WITH "M" AND "W" PLAN FORMS. Ellis Katz, Edward T. Marley, and William B. Pepper. September 18, 1950. 23p. diagrs., photos., tab. (NACA RM L50G31)

BASE PRESSURE AT SUPERSONIC SPEEDS ON TWO-DIMENSIONAL AIRFOILS AND ON BODIES OF REVOLUTION WITH AND WITHOUT FINS HAVING TURBULENT BOUNDARY LAYERS. Eugene S. Love. January 1957. 65p. diagrs., photos. (NACA TN 3819. Supersedes RM L53C02)

(1.2.1) WING SECTIONS

PRELIMINARY ESTIMATE OF PERFORMANCE OF A TURBOJET ENGINE WHEN INLET PRESSURE IS REDUCED BELOW EXHAUST PRESSURE. H. D. Wilsted and W. D. Stemples. February 18, 1948. 42p. diagrs. (NACA RM E7I30)

CALCULATIONS OF THE FLOW OVER AN INCLINED FLAT PLATE AT FREE-STREAM MACH NUMBER 1. Walter G. Vincenti, Cleo B. Wagoner, and Newman H. Fisher, Jr. August 1956. 70p. diagrs., tabs. (NACA TN 3723)

(1.2.1.1) SECTION THEORY

SECOND-ORDER SUBSONIC AIRFOIL THEORY INCLUDING EDGE EFFECTS. Milton D. Van Dyke. 1956. ii, 23p. diagrs., tabs. (NACA Rept. 1274. Supersedes TN 3390 and portions of TN 3343)

CALCULATION AND COMPILATION OF THE UNSTEADY-LIFT FUNCTIONS FOR A RIGID WING SUBJECTED TO SINUSOIDAL GUSTS AND TO SINUSOIDAL SINKING OSCILLATIONS. Joseph A. Drischler. October 1956. 59p. diagrs., tab. (NACA TN 3748)

CONVERSION OF INVISCID NORMAL-FORCE COEFFICIENTS IN HELIUM TO EQUIVALENT COEFFICIENTS IN AIR FOR SIMPLE SHAPES AT HYPERSONIC SPEEDS. James N. Mueller. October 1956. 31p. diagrs. (NACA TN 3807)

THIN AIRFOIL THEORY BASED ON APPROXIMATE SOLUTION OF THE TRANSONIC FLOW EQUATION. John R. Spreiter and Alberta Y. Alksne. May 1957. 82p. (NACA TN 3970)

(1.2.1.2) SECTION VARIABLES

FLIGHT MEASUREMENTS OF THE PRESSURE DISTRIBUTION ON THE WING OF THE X-1 AIRPLANE (10-PERCENT-THICK WING) OVER A CHORDWISE STATION NEAR THE MIDSPAN, IN LEVEL FLIGHT AT MACH NUMBERS FROM 0.79 TO 1.00 AND IN A PULL-UP AT A MACH NUMBER OF 0.96. H. Arthur Carner and Ronald J. Knapp. September 12, 1950. 25p. diagrs., photo., tab. (NACA RM L50H04)

THE UNSTEADY NORMAL-FORCE CHARACTERISTICS OF SELECTED NACA PROFILES AT HIGH SUBSONIC MACH NUMBERS. Perry P. Polentz, William A. Page, and Lionel L. Levy, Jr. May 1955. 110p. diagrs., photos., tab. (NACA RM A55C02)

ZERO-LIFT DRAG OF A SERIES OF BOMB SHAPES AT MACH NUMBERS FROM 0.60 TO 1.10. William E. Stoney, Jr., and John F. Royall. July 1956. 12p. diagrs., photos., tabs. (NACA RM L56D16)

A CORRELATION OF LOW-SPEED, AIRFOIL-SECTION STALLING CHARACTERISTICS WITH REYNOLDS NUMBER AND AIRFOIL GEOMETRY. Donald E. Gault. March 1957. 9p. diagrs., tab. (NACA TN 3963)

(1.2.1.2.1) Camber

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - INVESTIGATION AT A MACH NUMBER OF 1.53 TO DETERMINE THE EFFECTS OF CAMBERING AND TWISTING THE WING FOR UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. Robert T. Madden. May 6, 1949. 33p. diagrs., photo., tabs. (NACA RM A9C07)

AN INVESTIGATION AT SUBSONIC SPEEDS OF SEVERAL MODIFICATIONS TO THE LEADING-EDGE REGION OF THE NACA 64A010 AIRFOIL SECTION DESIGNED TO INCREASE MAXIMUM LIFT. Ralph L. Maki and Lynn W. Hunton. December 1956. 50p. diagrs., tab. (NACA TN 3871)

(1.2.1.2.2) Thickness

AN INVESTIGATION OF FLOW CHARACTERISTICS AT MACH NUMBER 4.04 OVER 6- AND 9-PERCENT-THICK SYMMETRICAL CIRCULAR-ARC AIRFOILS HAVING 30-PERCENT-CHORD TRAILING-EDGE FLAPS. Edward F. Ulmann and Douglas R. Lord. July 1951. 67p. diagrs., photos., tab. (NACA RM L51D30)

BUFFETING FORCES ON TWO-DIMENSIONAL AIRFOILS AS AFFECTED BY THICKNESS AND THICKNESS DISTRIBUTION. Charles F. Coe and Jack A. Mellenthin. February 1954. 26p. diagrs., photo. (NACA RM A53K24)

INVESTIGATION OF THE EFFECTS OF PROFILE SHAPE ON THE AERODYNAMIC AND STRUCTURAL CHARACTERISTICS OF THIN, TWO-DIMENSIONAL AIRFOILS AT SUPERSONIC SPEEDS. Elliott D. Katzen, Donald M. Kuehn, and William A. Hill, Jr. May 1954. 59p. diagrs., tabs. (NACA RM A54B08a)

AN EXPERIMENTAL HYDRODYNAMIC INVESTIGATION OF THE INCEPTION OF VORTEX VENTILATION. John A. Ramsen. April 1957. 31p. diagrs., photos. (NACA TN 3903)

HYDRODYNAMIC CHARACTERISTICS OVER A RANGE OF SPEEDS UP TO 80 FEET PER SECOND OF A RECTANGULAR MODIFIED FLAT PLATE HAVING AN ASPECT RATIO OF 0.25 AND OPERATING AT SEVERAL DEPTHS OF SUBMERSION. Victor L. Vaughan, Jr., and John A. Ramsen. April 1957. 23p. diagrs. (NACA TN 3908)

THIN AIRFOIL THEORY BASED ON APPROXIMATE SOLUTION OF THE TRANSONIC FLOW EQUATION. John R. Spreiter and Alberta Y. Alksne. May 1957. 82p. (NACA TN 3970)

(1.2.1.2.3) Thickness Distribution

BUFFETING FORCES ON TWO-DIMENSIONAL AIRFOILS AS AFFECTED BY THICKNESS AND THICKNESS DISTRIBUTION. Charles F. Coe and Jack A. Mellenthin. February 1954. 26p. diagrs., photo. (NACA RM A53K24)

INVESTIGATION OF THE EFFECTS OF PROFILE SHAPE ON THE AERODYNAMIC AND STRUCTURAL CHARACTERISTICS OF THIN, TWO-DIMENSIONAL AIRFOILS AT SUPERSONIC SPEEDS. Elliott D. Katzen, Donald M. Kuehn, and William A. Hill, Jr. May 1954. 59p. diagrs., tabs. (NACA RM A54B08a)

THE EFFECT OF BLUNT-TRAILING-EDGE ELEVONS ON THE LONGITUDINAL AND LATERAL HANDLING QUALITIES OF THE X-4 SEMITAILLESS AIRPLANE. Edwin J. Saltzman. January 1955. 29p. diagrs., photos., tab. (NACA RM H54K03)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECTS OF LEADING-EDGE RADIUS ON THE AERODYNAMIC CHARACTERISTICS OF A SWEPTBACK-WING—FUSELAGE COMBINATION WITH LEADING-EDGE FLAPS AND CHORD-EXTENSIONS. Kenneth P. Spreemann. July 1955. 42p. diagrs., photo., tabs. (NACA RM L55E25a)

EXPERIMENTAL INVESTIGATION ON THE LANGLEY HELICOPTER TEST TOWER OF COMPRESSIBILITY EFFECTS ON A ROTOR HAVING NACA 63_2-015 AIRFOIL SECTIONS. James P. Shivers and Paul J. Carpenter. December 1956. 28p. diagrs., photo. (NACA TN 3850)

AN INVESTIGATION AT SUBSONIC SPEEDS OF SEVERAL MODIFICATIONS TO THE LEADING-EDGE REGION OF THE NACA 64A010 AIRFOIL SECTION DESIGNED TO INCREASE MAXIMUM LIFT. Ralph L. Maki and Lynn W. Hunton. December 1956. 50p. diagrs., tab. (NACA TN 3871)

(1.2.1.2.5) Surface Conditions

EXPERIMENTAL INVESTIGATION OF BOUNDARY-LAYER SUCTION THROUGH SLOTS TO OBTAIN EXTENSIVE LAMINAR BOUNDARY LAYERS ON A 15-PERCENT-THICK AIRFOIL SECTION AT HIGH REYNOLDS NUMBERS. Laurence K. Loftin, Jr., and Elmer A. Horton. June 1952. 38p. diagrs., photos., tabs. (NACA RM L52D02)

INVESTIGATION OF THE EFFECTS OF PROFILE SHAPE ON THE AERODYNAMIC AND STRUCTURAL CHARACTERISTICS OF THIN, TWO-DIMENSIONAL AIRFOILS AT SUPERSONIC SPEEDS. Elliott D. Katzen, Donald M. Kuehn, and William A. Hill, Jr. May 1954. 59p. diagrs., tabs. (NACA RM A54B08a)

USE OF TRUNCATED FLAPPED AIRFOILS FOR IMPINGEMENT AND ICING TESTS OF FULL-SCALE LEADING-EDGE SECTIONS. Uwe H. von Glahn. July 1956. 29p. diagrs., photos., tabs. (NACA RM E56E11)

A LOW-SPEED EXPERIMENTAL INVESTIGATION OF THE EFFECT OF A SANDPAPER TYPE OF ROUGHNESS ON BOUNDARY-LAYER TRANSITION. Albert E. von Doenhoff and Elmer A. Horton. October 1956. 45p. diagrs., photos. (NACA TN 3858) CORRECTED COPY

EXPERIMENTAL DROPLET IMPINGEMENT ON SEVERAL TWO-DIMENSIONAL AIRFOILS WITH THICKNESS RATIOS OF 6 TO 16 PERCENT. Thomas F. Gelder, William H. Smyers, Jr., and Uwe von Glahn. December 1956. 77p. diagrs., photos., tabs. (NACA TN 3839)

PERFORATED SHEETS AS THE POROUS MATERIAL FOR A SUCTION-FLAP APPLICATION. Robert E. Dannenberg, James A. Weiberg, and Bruno J. Gambucci. May 1957. 36p. diagrs., photos. (NACA TN 4038)

(1.2.1.3) DESIGNATED PROFILES

FLIGHT MEASUREMENTS OF THE PRESSURE DISTRIBUTION ON THE WING OF THE X-1 AIRPLANE (10-PERCENT-THICK WING) OVER A CHORDWISE STATION NEAR THE MIDSPAN, IN LEVEL FLIGHT AT MACH NUMBERS FROM 0.79 TO 1.00 AND IN A PULL-UP AT A MACH NUMBER OF 0.96. H. Arthur Carner and Ronald J. Knapp. September 12, 1950. 25p. diagrs., photo., tab. (NACA RM L50H04)

EXPERIMENTAL INVESTIGATION OF BOUNDARY-LAYER SUCTION THROUGH SLOTS TO OBTAIN EXTENSIVE LAMINAR BOUNDARY LAYERS ON A 15-PERCENT-THICK AIRFOIL SECTION AT HIGH REYNOLDS NUMBERS. Laurence K. Loftin, Jr., and Elmer A. Horton. June 1952. 38p. diagrs., photos., tabs. (NACA RM L52D02)

FLIGHT-DETERMINED PRESSURE DISTRIBUTIONS OVER THE WING OF THE BELL X-1 RESEARCH AIRPLANE (10-PERCENT-THICK WING) AT SUBSONIC AND TRANSONIC SPEEDS. Ronald J. Knapp and Gareth H. Jordan. June 1953. 43p. diagrs., photo., tab. (NACA RM L53D20)

BUFFETING FORCES ON TWO-DIMENSIONAL AIRFOILS AS AFFECTED BY THICKNESS AND THICKNESS DISTRIBUTION. Charles F. Coe and Jack A. Mellenthin. February 1954. 26p. diagrs., photo. (NACA RM A53K24)

INVESTIGATION OF THE EFFECTS OF PROFILE SHAPE ON THE AERODYNAMIC AND STRUCTURAL CHARACTERISTICS OF THIN, TWO-DIMENSIONAL AIRFOILS AT SUPERSONIC SPEEDS. Elliott D. Katzen, Donald M. Kuehn, and William A. Hill, Jr. May 1954. 59p. diagrs., tabs. (NACA RM A54B08a)

THE UNSTEADY NORMAL-FORCE CHARACTERISTICS OF SELECTED NACA PROFILES AT HIGH SUBSONIC MACH NUMBERS. Perry P. Polentz, William A. Page, and Lionel L. Levy, Jr. May 1955. 110p. diagrs., photos., tab. (NACA RM A55C02)

AN INVESTIGATION AT LOW SPEED OF THE FLOW OVER A SIMULATED FLAT PLATE AT SMALL ANGLES OF ATTACK USING PITOT-STATIC AND HOT-WIRE PROBES. Donald E. Gault. March 1957. 58p. diagrs., photos., tabs. (NACA TN 3876)

(1.2.1.4) HIGH-LIFT DEVICES

PRELIMINARY ESTIMATE OF PERFORMANCE OF A TURBOJET ENGINE WHEN INLET PRESSURE IS REDUCED BELOW EXHAUST PRESSURE. H. D. Wilsted and W. D. Stemples. February 18, 1948. 42p. diagrs. (NACA RM E7I30)

ESTIMATION OF INCREMENTAL PITCHING MOMENTS DUE TO TRAILING-EDGE FLAPS ON SWEPT AND TRIANGULAR WINGS. Harry A. James and Lynn W. Hunton. June 1955. 31p. diagrs., tab. (NACA RM A55D07)

AN INVESTIGATION AT SUBSONIC SPEEDS OF SEVERAL MODIFICATIONS TO THE LEADING-EDGE REGION OF THE NACA 64A010 AIRFOIL SECTION DESIGNED TO INCREASE MAXIMUM LIFT. Ralph L. Maki and Lynn W. Hunton. December 1956. 50p. diagrs., tab. (NACA TN 3871)

PERFORATED SHEETS AS THE POROUS MATERIAL FOR A SUCTION-FLAP APPLICATION. Robert E. Dannenberg, James A. Weiberg, and Bruno J. Gambucci. May 1957. 36p. diagrs., photos. (NACA TN 4038)

(1.2.1.4.1) Plain Flaps

ESTIMATION OF INCREMENTAL PITCHING MOMENTS DUE TO TRAILING-EDGE FLAPS ON SWEPT AND TRIANGULAR WINGS. Harry A. James and Lynn W. Hunton. June 1955. 31p. diagrs., tab. (NACA RM A55D07)

A CORRELATION OF TWO-DIMENSIONAL DATA ON LIFT COEFFICIENT AVAILABLE WITH BLOWING-, SUCTION-, SLOTTED-, AND PLAIN-FLAP HIGH-LIFT DEVICES. John M. Riebe. October 1955. 32p. diagrs. (NACA RM L55D29a)

SECTION CHARACTERISTICS OF THE NACA 0006 AIRFOIL WITH LEADING-EDGE AND TRAILING-EDGE FLAPS. Bruno J. Gambucci. December 1956. 17p. diagrs., photo., tabs. (NACA TN 3797)

(1.2.1.4.2) Split Flaps

ESTIMATION OF INCREMENTAL PITCHING MOMENTS DUE TO TRAILING-EDGE FLAPS ON SWEPT AND TRIANGULAR WINGS. Harry A. James and Lynn W. Hunton. June 1955. 31p. diagrs., tab. (NACA RM A55D07)

(1.2.1.4.3) Slotted Flaps

ESTIMATION OF INCREMENTAL PITCHING MOMENTS DUE TO TRAILING-EDGE FLAPS ON SWEPT AND TRIANGULAR WINGS. Harry A. James and Lynn W. Hunton. June 1955. 31p. diagrs., tab. (NACA RM A55D07)

A CORRELATION OF TWO-DIMENSIONAL DATA ON LIFT COEFFICIENT AVAILABLE WITH BLOWING-, SUCTION-, SLOTTED-, AND PLAIN-FLAP HIGH-LIFT DEVICES. John M. Riebe. October 1955. 32p. diagrs. (NACA RM L55D29a)

(1.2.1.4.4) Leading Edge Flaps

A CORRELATION OF TWO-DIMENSIONAL DATA ON LIFT COEFFICIENT AVAILABLE WITH BLOWING-, SUCTION-, SLOTTED-, AND PLAIN-FLAP HIGH-LIFT DEVICES. John M. Riebe. October 1955. 32p. diagrs. (NACA RM L55D29a)

SECTION CHARACTERISTICS OF THE NACA 0006 AIRFOIL WITH LEADING-EDGE AND TRAILING-EDGE FLAPS. Bruno J. Gambucci. December 1956. 17p. diagrs., photo., tabs. (NACA TN 3797)

(1.2.1.4.5) Slots and Slats

A CORRELATION OF TWO-DIMENSIONAL DATA ON LIFT COEFFICIENT AVAILABLE WITH BLOWING-, SUCTION-, SLOTTED-, AND PLAIN-FLAP HIGH-LIFT DEVICES. John M. Riebe. October 1955. 32p. diagrs. (NACA RM L55D29a)

(1.2.1.5) CONTROLS

(1.2.1.5.1) Flap Type

AN INVESTIGATION OF FLOW CHARACTERISTICS AT MACH NUMBER 4.04 OVER 6- AND 9-PERCENT-THICK SYMMETRICAL CIRCULAR-ARC AIRFOILS HAVING 30-PERCENT-CHORD TRAILING-EDGE FLAPS. Edward F. Ulmann and Douglas R. Lord. July 1951. 67p. diagrs., photos., tab. (NACA RM L51D30)

THE EFFECT OF BLUNT-TRAILING-EDGE ELEVONS ON THE LONGITUDINAL AND LATERAL HANDLING QUALITIES OF THE X-4 SEMITAILLESS AIRPLANE. Edwin J. Saltzman. January 1955. 29p. diagrs., photos., tab. (NACA RM H54K03)

PRELIMINARY DATA AT A MACH NUMBER OF 2.40 OF THE CHARACTERISTICS OF FLAP-TYPE CONTROLS EQUIPPED WITH PLAIN OVERHANG BALANCES. James N. Mueller and K. R. Czarnecki. March 1957. 43p. diagrs., photos. (NACA TN 3948. Supersedes RM L52F10)

(1.2.1.5.2) Spoilers

EFFECTS OF SPOILER ON AIRFOIL PRESSURE DISTRIBUTION AND EFFECTS OF SIZE AND LOCATION OF SPOILERS ON THE AERODYNAMIC CHARACTERISTICS OF A TAPERED UNSWEPT WING OF ASPECT RATIO 2.5 AT A MACH NUMBER OF 1.90. D. William Conner and Meade H. Mitchell, Jr. January 24, 1951. 33p. diagrs., photo. (NACA RM L50L20)

INVESTIGATION OF SPOILERS AT A MACH NUMBER OF 1.93 TO DETERMINE THE EFFECTS OF HEIGHT AND CHORDWISE LOCATION ON THE SECTION AERODYNAMIC CHARACTERISTICS OF A TWO-DIMENSIONAL WING. James N. Mueller. March 1953. 52p. diagrs., photos. (NACA RM L52L31)

THE APPLICATION OF A SIMPLIFIED LIFTING-SURFACE THEORY TO THE PREDICTION OF THE ROLLING EFFECTIVENESS OF PLAIN SPOILER AILERONS AT SUBSONIC SPEEDS. Ralph W. Franks. December 1954. 29p. diagrs., tab. (NACA RM A54H26a)

THE EFFECT OF A 4-PERCENT-HIGH SPOILER ON BUFFETING FORCES ON AN NACA $65_{(06)}$A004 TWO-DIMENSIONAL AIRFOIL AT SUBSONIC MACH NUMBERS. Jack A. Mellenthin. March 1955. 14p. diagrs., photos., tab. (NACA RM A54L22)

EXPERIMENTAL INVESTIGATION OF THE OSCILLATING FORCES AND MOMENTS ON A TWO-DIMENSIONAL WING EQUIPPED WITH AN OSCILLATING CIRCULAR-ARC SPOILER. Sherman A. Clevenson and John E. Tomassoni. March 1957. 20p. diagrs., photos. (NACA TN 3949. Supersedes RM L53K18)

(1.2.1.6) BOUNDARY LAYER

PRELIMINARY ESTIMATE OF PERFORMANCE OF A TURBOJET ENGINE WHEN INLET PRESSURE IS REDUCED BELOW EXHAUST PRESSURE. H. D. Wilsted and W. D. Stemples. February 18, 1948. 42p. diagrs. (NACA RM E7I30)

AN INVESTIGATION OF FLOW CHARACTERISTICS AT MACH NUMBER 4.04 OVER 6- AND 9-PERCENT-THICK SYMMETRICAL CIRCULAR-ARC AIRFOILS HAVING 30-PERCENT-CHORD TRAILING-EDGE FLAPS. Edward F. Ulmann and Douglas R. Lord. July 1951. 67p. diagrs., photos., tab. (NACA RM L51D30)

EXPERIMENTAL INVESTIGATION OF BOUNDARY-LAYER SUCTION THROUGH SLOTS TO OBTAIN EXTENSIVE LAMINAR BOUNDARY LAYERS ON A 15-PERCENT-THICK AIRFOIL SECTION AT HIGH REYNOLDS NUMBERS. Laurence K. Loftin, Jr., and Elmer A. Horton. June 1952. 38p. diagrs., photos., tabs. (NACA RM L52D02)

LIFT HYSTERESIS AT STALL AS AN UNSTEADY BOUNDARY-LAYER PHENOMENON. Franklin K. Moore. 1956. ii, 10p. diagrs., tab. (NACA Rept. 1291. Supersedes TN 3571)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. I - SIMILARITY WITH RESPECT TO STATIONARY RECTANGULAR COORDINATES. Arthur G. Hansen and Howard Z. Herzig. October 1956. 30p. tab. (NACA TN 3768)

A FACTOR AFFECTING TRANSONIC LEADING-EDGE FLOW SEPARATION. George P. Wood and Paul B. Gooderum. October 1956. 43p. diagrs., photos. (NACA TN 3804)

SOME OBSERVATIONS ON MAXIMUM PRESSURE RISE ACROSS SHOCKS WITHOUT BOUNDARY-LAYER SEPARATION ON AIRFOILS AT TRANSONIC SPEEDS. Walter F. Lindsey and Patrick J. Johnston. November 1956. 27p. diagrs., photos. (NACA TN 3820)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. II - SIMILARITY WITH RESPECT TO STATIONARY POLAR COORDINATES. Howard Z. Herzig and Arthur G. Hansen. November 1956. 16p. tab. (NACA TN 3832)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. III - SIMILARITY WITH RESPECT TO STATIONARY POLAR COORDINATES FOR SMALL ANGLE VARIATION. Howard Z. Herzig and Arthur G. Hansen. January 1957. 36p. diagrs., photos., tab. (NACA TN 3890)

AN INVESTIGATION AT LOW SPEED OF THE FLOW OVER A SIMULATED FLAT PLATE AT SMALL ANGLES OF ATTACK USING PITOT-STATIC AND HOT-WIRE PROBES. Donald E. Gault. March 1957. 58p. diagrs., photos., tabs. (NACA TN 3876)

ON FLOW OF ELECTRICALLY CONDUCTING FLUIDS OVER A FLAT PLATE IN THE PRESENCE OF A TRANSVERSE MAGNETIC FIELD. Vernon J. Rossow. May 1957. 54p. tabs. (NACA TN 3971)

COMPRESSIBLE LAMINAR BOUNDARY LAYER OVER A YAWED INFINITE CYLINDER WITH HEAT TRANSFER AND ARBITRARY PRANDTL NUMBER. Eli Reshotko and Ivan E. Beckwith. June 1957. (i), 86p. diagrs., tabs. (NACA TN 3986)

(1.2.1.6.1) Characteristics

A LOW-SPEED EXPERIMENTAL INVESTIGATION OF THE EFFECT OF A SANDPAPER TYPE OF ROUGHNESS ON BOUNDARY-LAYER TRANSITION. Albert E. von Doenhoff and Elmer A. Horton. October 1956. 45p. diagrs., photos. (NACA TN 3858) CORRECTED COPY

(1.2.1.6.2) Control

A CORRELATION OF TWO-DIMENSIONAL DATA ON LIFT COEFFICIENT AVAILABLE WITH BLOWING-, SUCTION-, SLOTTED-, AND PLAIN-FLAP HIGH-LIFT DEVICES. John M. Riebe. October 1955. 32p. diagrs. (NACA RM L55D29a)

PERFORATED SHEETS AS THE POROUS MATERIAL FOR A SUCTION-FLAP APPLICATION. Robert E. Dannenberg, James A. Weiberg, and Bruno J. Gambucci. May 1957. 36p. diagrs., photos. (NACA TN 4038)

(1.2.1.7) REYNOLDS NUMBER EFFECTS

AN INVESTIGATION OF FLOW CHARACTERISTICS AT MACH NUMBER 4.04 OVER 6- AND 9-PERCENT-THICK SYMMETRICAL CIRCULAR-ARC AIRFOILS HAVING 30-PERCENT-CHORD TRAILING-EDGE FLAPS. Edward F. Ulmann and Douglas R. Lord. July 1951. 67p. diagrs., photos., tab. (NACA RM L51D30)

EXPERIMENTAL INVESTIGATION OF BOUNDARY-LAYER SUCTION THROUGH SLOTS TO OBTAIN EXTENSIVE LAMINAR BOUNDARY LAYERS ON A 15-PERCENT-THICK AIRFOIL SECTION AT HIGH REYNOLDS NUMBERS. Laurence K. Loftin, Jr., and Elmer A. Horton. June 1952. 38p. diagrs., photos., tabs. (NACA RM L52D02)

PRESSURE DISTRIBUTIONS ON THREE BODIES OF REVOLUTION TO DETERMINE THE EFFECT OF REYNOLDS NUMBER UP TO AND INCLUDING THE TRANSONIC SPEED RANGE. John M. Swihart and Charles F. Whitcomb. October 1953. 39p. diagrs., photo., tab. (NACA RM L53H04)

INVESTIGATION OF THE EFFECTS OF PROFILE SHAPE ON THE AERODYNAMIC AND STRUCTURAL CHARACTERISTICS OF THIN, TWO-DIMENSIONAL AIRFOILS AT SUPERSONIC SPEEDS. Elliott D. Katzen, Donald M. Kuehn, and William A. Hill, Jr. May 1954. 59p. diagrs., tabs. (NACA RM A54B08a)

AN INVESTIGATION AT SUBSONIC SPEEDS OF SEVERAL MODIFICATIONS TO THE LEADING-EDGE REGION OF THE NACA 64A010 AIRFOIL SECTION DESIGNED TO INCREASE MAXIMUM LIFT. Ralph L. Maki and Lynn W. Hunton. December 1956. 50p. diagrs., tab. (NACA TN 3871)

A CORRELATION OF LOW-SPEED, AIRFOIL-SECTION STALLING CHARACTERISTICS WITH REYNOLDS NUMBER AND AIRFOIL GEOMETRY. Donald E. Gault. March 1957. 9p. diagrs., tab. (NACA TN 3963)

(1.2.1.8) MACH NUMBER EFFECTS

FLIGHT MEASUREMENTS OF THE PRESSURE DISTRIBUTION ON THE WING OF THE X-1 AIRPLANE (10-PERCENT-THICK WING) OVER A CHORDWISE STATION NEAR THE MIDSPAN, IN LEVEL FLIGHT AT MACH NUMBERS FROM 0.79 TO 1.00 AND IN A PULL-UP AT A MACH NUMBER OF 0.96. H. Arthur Carner and Ronald J. Knapp. September 12, 1950. 25p. diagrs., photo., tab. (NACA RM L50H04)

INVESTIGATION AT A MACH NUMBER OF 1.2 OF TWO 45° SWEPTBACK WINGS UTILIZING NACA 2-006 AND NACA 65A006 AIRFOIL SECTIONS. Homer B. Wilson, Jr. September 1952. 20p. diagrs., photo., tab. (NACA RM L52G17)

FLIGHT-DETERMINED PRESSURE DISTRIBUTIONS OVER THE WING OF THE BELL X-1 RESEARCH AIRPLANE (10-PERCENT-THICK WING) AT SUBSONIC AND TRANSONIC SPEEDS. Ronald J. Knapp and Gareth H. Jordan. June 1953. 43p. diagrs., photo., tab. (NACA RM L53D20)

MEASUREMENTS OF FLUCTUATING PRESSURES ON THE WINGS AND BODY OF A SWEPTBACK WING-BODY COMBINATION IN THE LANGLEY 16-FOOT TRANSONIC TUNNEL. Louis W. Habel and Donald R. Bowman. September 1953. 24p. diagrs., photos. (NACA RM L53G06a)

BUFFETING FORCES ON TWO-DIMENSIONAL AIRFOILS AS AFFECTED BY THICKNESS AND THICKNESS DISTRIBUTION. Charles F. Coe and Jack A. Mellenthin. February 1954. 26p. diagrs., photo. (NACA RM A53K24)

INVESTIGATION OF THE EFFECTS OF PROFILE SHAPE ON THE AERODYNAMIC AND STRUCTURAL CHARACTERISTICS OF THIN, TWO-DIMENSIONAL AIRFOILS AT SUPERSONIC SPEEDS. Elliott D. Katzen, Donald M. Kuehn, and William A. Hill, Jr. May 1954. 59p. diagrs., tabs. (NACA RM A54B08a)

AN INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE PRESSURE DISTRIBUTIONS ON A 45° SWEPTBACK VERTICAL TAIL IN SIDESLIP WITH AND WITHOUT A 45° SWEPTBACK HORIZONTAL TAIL LOCATED ON THE FUSELAGE CENTER LINE. Harleth G. Wiley and William C. Moseley, Jr. November 1954. 81p. diagrs., photos., 7 tabs. (NACA RM L54H23)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE PRESSURE DISTRIBUTIONS ON A 45° SWEPTBACK VERTICAL TAIL IN SIDESLIP WITH A 45° SWEPTBACK HORIZONTAL TAIL MOUNTED AT 50-PERCENT AND 100-PERCENT VERTICAL-TAIL SPAN. Harleth G. Wiley and William C. Moseley, Jr. November 1954. 89p. diagrs., photos., tabs. (NACA RM L54I08)

A STUDY OF THE APPLICATION OF AIRFOIL SECTION DATA TO THE ESTIMATION OF THE HIGH SUBSONIC SPEED CHARACTERISTICS OF SWEPT WINGS. Lynn W. Hunton. June 1955. 37p. diagrs., tab. (NACA RM A55C23)

SECOND-ORDER SUBSONIC AIRFOIL THEORY INCLUDING EDGE EFFECTS. Milton D. Van Dyke. 1956. ii, 23p. diagrs., tabs. (NACA Rept. 1274. Supersedes TN 3390 and portions of TN 3343)

A FACTOR AFFECTING TRANSONIC LEADING-EDGE FLOW SEPARATION. George P. Wood and Paul B. Gooderum. October 1956. 43p. diagrs., photos. (NACA TN 3804)

CONVERSION OF INVISCID NORMAL-FORCE COEFFICIENTS IN HELIUM TO EQUIVALENT COEFFICIENTS IN AIR FOR SIMPLE SHAPES AT HYPERSONIC SPEEDS. James N. Mueller. October 1956. 31p. diagrs. (NACA TN 3807)

AN INVESTIGATION AT SUBSONIC SPEEDS OF SEVERAL MODIFICATIONS TO THE LEADING-EDGE REGION OF THE NACA 64A010 AIRFOIL SECTION DESIGNED TO INCREASE MAXIMUM LIFT. Ralph L. Maki and Lynn W. Hunton. December 1956. 50p. diagrs., tab. (NACA TN 3871)

THIN AIRFOIL THEORY BASED ON APPROXIMATE SOLUTION OF THE TRANSONIC FLOW EQUATION. John R. Spreiter and Alberta Y. Alksne. May 1957. 82p. (NACA TN 3970)

(1.2.1.9)
WAKE

THE EFFECT OF BASE BLEED ON THE BASE PRESSURE, LIFT, DRAG, AND PITCHING MOMENT OF A 10-PERCENT-THICK BLUNT-BASE AIRFOIL AT A MACH NUMBER OF 2.72. Jim J. Jones. January 1955. 17p. diagrs., photo. (NACA RM L54K10)

LOW-SPEED WAKE CHARACTERISTICS OF TWO-DIMENSIONAL CASCADE AND ISOLATED AIRFOIL SECTIONS. Seymour Lieblein and William H. Roudebush. October 1956. 49p. diagrs., tabs. (NACA TN 3771)

TURBULENCE IN THE WAKE OF A THIN AIRFOIL AT LOW SPEEDS. George S. Campbell, California Institute of Technology. January 1957. 63p. diagrs. (NACA TM 1427)

(1.2.2)
COMPLETE WINGS

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF A WING SWEPT BACK 63° AND TWISTED AND CAMBERED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.5. James A. Weiberg and Hubert C. Carel. May 9, 1950. 53p. diagrs., photos., tabs. (NACA RM A50A23)

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF A WING SWEPT BACK 63° AND TWISTED AND CAMBERED FOR UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.5 AND WITH A THICKENED TIP SECTION. James A. Weiberg and Hubert C. Carel. November 21, 1950. 42p. diagrs., photo., tabs. (NACA RM A50I14)

A COMPARISON OF THE CHORDWISE PRESSURE DISTRIBUTION AND SPANWISE DISTRIBUTION OF LOADING AT SUBSONIC SPEEDS ON TWO TRIANGULAR WINGS OF ASPECT RATIO 2 HAVING NACA 0005 AND 0008 SECTIONS. Donald W. Smith and Verlin D. Reed. May 1952. 142p. diagrs., photo., tabs. (NACA RM A51L21)

INITIAL FLUTTER TESTS IN THE LANGLEY TRANSONIC BLOWDOWN TUNNEL AND COMPARISON WITH FREE-FLIGHT FLUTTER RESULTS. William J. Bursnall. January 1953. 19p. diagrs., photos., tabs. (NACA RM L52K14)

EFFECT OF WING FLEXIBILITY ON THE DAMPING IN ROLL OF A NOTCHED DELTA WING-BODY COMBINATION BETWEEN MACH NUMBERS 0.6 AND APPROXIMATELY 2.2 AS DETERMINED WITH ROCKET-PROPELLED MODELS. William M. Bland, Jr. June 1954. 20p. diagrs., photos. (NACA RM L54E04)

SOME FACTORS AFFECTING THE VARIATION OF PITCHING MOMENT WITH SIDESLIP OF AIRCRAFT CONFIGURATIONS. Edward C. Polhamus. July 1955. 29p. diagrs. (NACA RM L55E20b)

(1. 2. 2. 1)
WING THEORY

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS AT A MACH NUMBER OF 1.53 INCLUDING EFFECT OF SMALL VARIATIONS OF SWEEP. Robert T. Madden. January 26, 1949. 71p. diagrs., photos., tabs. (NACA RM A8J04)

A COMPARISON OF THEORETICAL AND EXPERIMENTAL LOADING ON A 63° SWEPT-BACK WING AT SUPERSONIC SPEEDS. Victor I. Stevens and John W. Boyd. September 14, 1949. 21p. diagrs., photos. (NACA RM A9C16)

A COMPARISON OF THE EXPERIMENTAL AND THEORETICAL LOADING OVER TRIANGULAR WINGS AT SUPERSONIC SPEEDS. John W. Boyd and E. Ray Phelps. January 3, 1951. 42p. diagrs., photos., tabs. (NACA RM A50J17)

AERODYNAMIC CHARACTERISTICS AT MACH NUMBER 4.04 OF A RECTANGULAR WING OF ASPECT RATIO 1.33 HAVING A 6-PERCENT-THICK CIRCULAR-ARC PROFILE AND A 30-PERCENT-CHORD FULL-SPAN TRAILING-EDGE FLAP. Robert W. Dunning and Edward F. Ulmann. May 1953. 26p. diagrs., tab. (NACA RM L53D03)

INVESTIGATION OF THE EFFECT OF BALANCING TABS ON THE HINGE-MOMENT CHARACTERISTICS OF A TRAILING-EDGE FLAP-TYPE CONTROL ON A TRAPEZOIDAL WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and Cornelius Driver. August 1954. 23p. diagrs., photo. (NACA RM L54F22)

THE APPLICATION OF A SIMPLIFIED LIFTING-SURFACE THEORY TO THE PREDICTION OF THE ROLLING EFFECTIVENESS OF PLAIN SPOILER AILERONS AT SUBSONIC SPEEDS. Ralph W. Franks. December 1954. 29p. diagrs., tab. (NACA RM A54H26a)

SIMPLIFIED PROCEDURES FOR ESTIMATING FLAP-CONTROL LOADS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1955. 14p. diagrs. (NACA RM L55E12)

INVESTIGATION OF THE EFFECTS OF MODEL SCALE AND STREAM REYNOLDS NUMBER ON THE AERODYNAMIC CHARACTERISTICS OF TWO RECTANGULAR WINGS AT SUPERSONIC SPEEDS IN THE LANGLEY 9-INCH SUPERSONIC TUNNEL. Donald E. Coletti. June 1955. 32p. diagrs. (NACA RM L55D29)

THE PROPER COMBINATION OF LIFT LOADINGS FOR LEAST DRAG ON A SUPERSONIC WING. Frederick C. Grant. 1956. ii, 9p. diagrs., tab. (NACA Rept. 1275. Supersedes TN 3533)

A THEORETICAL STUDY OF THE LIFTING EFFICIENCY AT SUPERSONIC SPEEDS OF WINGS UTILIZING INDIRECT LIFT INDUCED BY VERTICAL SURFACES. Vernon J. Rossow. March 1956. ii, 59p. diagrs. (NACA RM A55L08)

THREE-DIMENSIONAL TRANSONIC FLOW THEORY APPLIED TO SLENDER WINGS AND BODIES. Max. A. Heaslet and John R. Spreiter. July 1956. 72p. diagrs. (NACA TN 3717)

METHOD FOR CALCULATING THE AERODYNAMIC LOADING ON AN OSCILLATING FINITE WING IN SUBSONIC AND SONIC FLOW. Harry L. Runyan and Donald S. Woolston. August 1956. 76p. diagrs., tabs. (NACA TN 3694)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE SUBSONIC-FLOW FIELDS BENEATH SWEPT AND UNSWEPT WINGS WITH TABLES OF VORTEX-INDUCED VELOCITIES. William J. Alford, Jr. August 1956. 91p. diagrs., photo., tabs. (NACA TN 3738)

FINITE SPAN WINGS IN COMPRESSIBLE FLOW. E. A. Krasilshchikova. September 1956. 130p. diagrs. (NACA TM 1383. From: Scientific Records of the Moscow State University, v.154, Mechanics no.4, 1951, with appendix condensed from a document "Modern Problems of Mechanics," Govt. Pub. House of Tech. Theor. Literature, (Moscow, Leningrad) 1952.)

CALCULATION AND COMPILATION OF THE UNSTEADY-LIFT FUNCTIONS FOR A RIGID WING SUBJECTED TO SINUSOIDAL GUSTS AND TO SINUSOIDAL SINKING OSCILLATIONS. Joseph A. Drischler. October 1956. 59p. diagrs., tab. (NACA TN 3748)

THEORETICAL CALCULATION OF THE POWER SPECTRA OF THE ROLLING AND YAWING MOMENTS ON A WING IN RANDOM TURBULENCE. John M. Eggleston and Franklin W. Diederich. December 1956. 56p. diagrs., tabs. (NACA TN 3864)

A METHOD FOR PREDICTING LIFT INCREMENTS DUE TO FLAP DEFLECTION AT LOW ANGLES OF ATTACK IN INCOMPRESSIBLE FLOW. John G. Lowry and Edward C. Polhamus. January 1957. 29p. diagrs. (NACA TN 3911)

COMPARISON OF CALCULATED AND EXPERIMENTAL LOAD DISTRIBUTIONS ON THIN WINGS AT HIGH SUBSONIC AND SONIC SPEEDS. John L. Crigler. January 1957. 46p. diagrs., tab. (NACA TN 3941)

SIDEWASH IN THE VICINITY OF LIFTING SWEPT WINGS AT SUPERSONIC SPEEDS. Percy J. Bobbitt and Peter J. Maxie, Jr. February 1957. 49p. diagrs. (NACA TN 3938)

THE LINEARIZED SUBSONIC FLOW ABOUT SYMMETRICAL NONLIFTING WING-BODY COMBINATIONS. John B. McDevitt. April 1957. 67p. diagrs. (NACA TN 3964)

LIFT AND MOMENT RESPONSES TO PENETRATION OF SHARP-EDGED TRAVELING GUSTS, WITH APPLICATION TO PENETRATION OF WEAK BLAST WAVES. Joseph A. Drischler and Franklin W. Diederich. May 1957. 85p. diagrs., tabs. (NACA TN 3956)

(1.2.2.2) WING VARIABLES

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°.- EFFECTIVENESS OF AN ELEVON AS A LONGITUDINAL CONTROL AND THE EFFECTS OF CAMBER AND TWIST ON THE MAXIMUM LIFT-DRAG RATIO AT SUPERSONIC SPEEDS. Robert N. Olson and Merrill H. Mead. May 8, 1950. 53p. diagrs., photos. (NACA RM A50A31a)

TABULATED PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS MEASURED ON THE WING OF THE BELL X-1 AIRPLANE IN LEVEL FLIGHT AT MACH NUMBERS FROM 0.79 TO 1.00 AND IN A PULL-UP AT A MACH NUMBER OF 0.96. H. Arthur Carner and Mary M. Payne. September 18, 1950. 43p. diagrs., photo., tabs. (NACA RM L50H25)

A SMALL-SCALE INVESTIGATION OF "M" AND "W" WINGS AT TRANSONIC SPEEDS. George S. Campbell and William D. Morrison, Jr. October 2, 1950. 30p. diagrs., photo., tab. (NACA RM L50H25a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TAPERED WING OF ASPECT RATIO 3.1 WITH 3-PERCENT-THICK, BICONVEX SECTION. David E. Reese and E. Ray Phelps. January 30, 1951. 26p. diagrs., photo. (NACA RM A50K28)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0008-63 SECTION. Donald W. Smith and John C. Heitmeyer. February 1, 1951. 22p. diagrs., photo. (NACA RM A50K20)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 SECTION. Donald W. Smith and John C. Heitmeyer. February 1, 1951. 23p. diagrs., photo. (NACA RM A50K21)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH NACA 0005-63 SECTION. John C. Heitmeyer and Jack D. Stephenson. February 2, 1951. 21p. diagrs., photo. (NACA RM A50K24)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0003-63 SECTION. John C. Heitmeyer and Willard G. Smith. February 2, 1951. 22p. diagrs., photo. (NACA RM A50K24a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TRIANGULAR WING OF ASPECT RATIO 4 WITH NACA 0005-63 THICKNESS DISTRIBUTION, CAMBERED AND TWISTED FOR TRAPEZOIDAL SPAN LOAD DISTRIBUTION. E. Ray Phelps and Willard G. Smith. February 2, 1951. 23p. diagrs., photo., tab. (NACA RM A50K24b)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 THICKNESS DISTRIBUTION, CAMBERED AND TWISTED FOR A TRAPEZOIDAL SPAN LOAD DISTRIBUTION. Willard G. Smith and E. Ray Phelps. February 5, 1951. 21p. diagrs., photo., tab. (NACA RM A50K27a)

AERODYNAMIC CHARACTERISTICS OF WINGS DESIGNED FOR STRUCTURAL IMPROVEMENTS. Joseph Weil and Edward C. Polhamus. May 28, 1951. 12p. diagrs. (NACA RM L51E10a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH 3-PERCENT-THICK, BICONVEX SECTION. John C. Heitmeyer. June 8, 1951. 26p. diagrs., photo. (NACA RM A51D30)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH 3-PERCENT-THICK ROUNDED NOSE SECTION. John C. Heitmeyer and Ronald C. Hightower. August 1951. 17p. diagrs. (NACA RM A51F21)

INVESTIGATION OF MINIMUM DRAG AND MAXIMUM LIFT-DRAG RATIOS OF SEVERAL WING-BODY COMBINATIONS INCLUDING A CAMBERED TRIANGULAR WING AT LOW REYNOLDS NUMBERS AND AT SUPERSONIC SPEEDS. Clinton E. Brown and L. K. Hargrave. August 1951. 62p. diagrs., photos., tabs. (NACA RM L51E11)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 3 WITH NACA 0003-63 SECTION. John C. Heitmeyer. September 1951. 20p. diagrs. (NACA RM A51H02)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE 45° SWEPT-BACK WING OF ASPECT RATIO 3, TAPER RATIO 0.4 WITH 3-PERCENT-THICK, BICONVEX SECTION. John C. Heitmeyer. September 1951. 20p. diagrs. (NACA RM A51H10)

TABULATED PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS MEASURED ON THE WING OF THE BELL X-1 AIRPLANE IN AN UNACCELERATED LOW-SPEED STALL, IN PUSH-OVERS AT MACH NUMBERS OF 0.83 AND 0.99, AND IN A PULL-UP AT A MACH NUMBER OF 1.16. Ronald J. Knapp. September 1951. 53p. diagrs., photo., tabs. (NACA RM L51F25)

DAMPING IN ROLL OF ROCKET-POWERED TEST VEHICLES HAVING SWEPT, TAPERED WINGS OF LOW ASPECT RATIO. E. Claude Sanders, Jr., and James L. Edmondson. October 1951. 25p. diagrs., photos., tab. (NACA RM L51G06)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - AN INVESTIGATION AT LARGE REYNOLDS NUMBERS OF THE LOW-SPEED CHARACTERISTICS OF SEVERAL WING-BODY COMBINATIONS. Donald W. Smith, Harry H. Shibata, and Ralph Selan. February 1952. 56p. diagrs., photos., tab. (NACA RM A51K28)

EFFECTS OF CHORD DISCONTINUITIES AND CHORDWISE FENCES ON LOW-SPEED STATIC LONGITUDINAL STABILITY OF AN AIRPLANE MODEL HAVING A 35° SWEPTBACK WING. Byron M. Jaquet. June 1952. 54p. photos., diagrs., tab. (NACA RM L52C25)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TAPERED WING OF ASPECT RATIO 3.1 WITH 3-PERCENT-THICK ROUNDED-NOSE SECTION. John C. Heitmeyer. July 1952. 25p. diagrs., tabs. (NACA RM A52D23)

TRANSONIC AERODYNAMIC CHARACTERISTICS OF THREE W-PLAN-FORM WINGS HAVING ASPECT RATIO 8, TAPER RATIO 0.45, AND NACA 63A-SERIES AIRFOIL SECTIONS. William D. Morrison, Jr. July 1952. 30p. diagrs., photo. (NACA RM L52E14a)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE CHARACTERISTICS OF A TWISTED AND CAMBERED 45° SWEPTBACK WING-FUSELAGE CONFIGURATION. Daniel E. Harrison. December 1952. 20p. diagrs. (NACA RM L52K18)

EFFECTS OF CHORD-EXTENSION AND DROOP OF COMBINED LEADING-EDGE FLAP AND CHORD-EXTENSION ON LOW-SPEED STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 35° SWEPTBACK WING WITH PLAIN FLAPS NEUTRAL OR DEFLECTED. Byron M. Jaquet. January 1953. 34p. diagrs., photos. (NACA RM L52K21a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - COMPARISON OF THREE WINGS OF ASPECT RATIO 2 OF RECTANGULAR, SWEPTBACK, AND TRIANGULAR PLAN FORM, INCLUDING EFFECTS OF THICKNESS DISTRIBUTION. Ronald C. Hightower. February 1953. 30p. diagrs., tabs. (NACA RM A52L02)

TRANSONIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION. EFFECT OF LONGITUDINAL WING POSITION AND DIVISION OF WING AND FUSELAGE FORCES AND MOMENTS. Joseph M. Hallissy and Donald R. Bowman. February 1953. 39p. diagrs., photo. (NACA RM L52K04)

TRANSONIC AERODYNAMIC CHARACTERISTICS IN PITCH OF A W-WING HAVING 60° 48' PANEL SWEEP, ASPECT RATIO 3.5, AND TAPER RATIO 0.25. William D. Morrison, Jr. August 1953. 18p. diagrs., photo. (NACA RM L53F22)

SOME LOW-SPEED WIND-TUNNEL EXPERIMENTS PERTAINING TO THE LONGITUDINAL STABILITY CHARACTERISTICS OF A 35° SWEPT-WING MODEL AND AN UNSWEPT-WING MODEL. Byron M. Jaquet. October 1953. 43p. diagrs., photos., tab. (NACA RM L53H31)

WIND-TUNNEL INVESTIGATION OF A 45° SWEPTBACK WING HAVING A SYMMETRICAL ROOT AND A HIGHLY CAMBERED TIP, INCLUDING THE EFFECTS OF FENCES AND LATERAL CONTROLS. Joseph W. Cleary and Lee E. Boddy. November 1953. 52p. diagrs., photo. (NACA RM A53I21)

AERODYNAMIC CHARACTERISTICS IN PITCH OF THREE STRUCTURALLY SIMILAR FLEXIBLE WINGS WITH 45° SWEEP: A SWEPTBACK WING, A WING WITH M PLAN FORM, AND A WING WITH W PLAN FORM. John W. McKee, Delwin R. Croom, and Rodger L. Naeseth. December 1953. 43p. diagrs., photos. (NACA RM L53J02a)

FLIGHT INVESTIGATION OF THE ROLLING EFFECTIVENESS OF FINGERED SEMAPHORE SPOILERS ON A TAPERED 45° SWEPTBACK WING BETWEEN MACH NUMBERS 0.6 AND 1.3. James D. Church. January 1954. 27p. diagrs., photos. (NACA RM L53K20)

THE EFFECTS OF CIRCULAR END PLATES ON THE LIFT, DRAG, AND PITCHING MOMENT AT SUBSONIC AND SUPERSONIC SPEEDS ON A MODIFIED TRIANGULAR WING HAVING AN ASPECT RATIO OF 2, A TAPER RATIO OF 0.33, AND A 45° SWEPT LEADING EDGE. Robert B. Petersen. March 1954. 16p. diagrs., tab. (NACA RM A53J14)

LATERAL CONTROL CHARACTERISTICS OF TWO STRUCTURALLY SIMILAR FLEXIBLE WINGS WITH 45° SWEEP: A SWEPTBACK WING AND A WING WITH M PLAN FORM. Rodger L. Naeseth, Delwin R. Croom, and John W. McKee. April 1954. 44p. diagrs., photo., tabs. (NACA RM L54C19)

AERODYNAMIC CHARACTERISTICS AT SMALL SCALE AND A MACH NUMBER OF 1.38 OF UNTAPERED WINGS HAVING M AND W PLAN FORMS. William B. Kemp, Jr. June 1954. 17p. diagrs., tab. (NACA RM L54D15a)

FLIGHT MEASUREMENTS OF WING LOADS ON THE CONVAIR XF-92A DELTA-WING AIRPLANE. Albert E. Kuhl and Clinton T. Johnson. May 1955. 37p. diagrs., photos., tab. (NACA RM H55D12)

SIMPLIFIED PROCEDURES FOR ESTIMATING FLAP-CONTROL LOADS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1955. 14p. diagrs. (NACA RM L55E12)

A STUDY OF THE APPLICATION OF AIRFOIL SECTION DATA TO THE ESTIMATION OF THE HIGH SUBSONIC SPEED CHARACTERISTICS OF SWEPT WINGS. Lynn W. Hunton. June 1955. 37p. diagrs., tab. (NACA RM A55C23)

A THEORETICAL STUDY OF THE LIFTING EFFICIENCY AT SUPERSONIC SPEEDS OF WINGS UTILIZING INDIRECT LIFT INDUCED BY VERTICAL SURFACES. Vernon J. Rossow. March 1956. ii, 59p. diagrs. (NACA RM A55L08)

THEORETICAL CALCULATION OF THE POWER SPECTRA OF THE ROLLING AND YAWING MOMENTS ON A WING IN RANDOM TURBULENCE. John M. Eggleston and Franklin W. Diederich. December 1956. 56p. diagrs., tabs. (NACA TN 3864)

EXPERIMENTAL DETERMINATION OF THE RANGE OF APPLICABILITY OF THE TRANSONIC AREA RULE FOR WINGS OF TRIANGULAR PLAN FORM. William A. Page. December 1956. 22p. diagrs., photos. (NACA TN 3872)

A COLLECTION OF DATA FOR ZERO-LIFT DAMPING IN ROLL OF WING-BODY COMBINATIONS AS DETERMINED WITH ROCKET-POWERED MODELS EQUIPPED WITH ROLL-TORQUE NOZZLES. David G. Stone. April 1957. 23p. diagrs., tab. (NACA TN 3955. Supersedes RM L53E26)

EFFECTS OF HORIZONTAL-TAIL POSITION AND A WING LEADING-EDGE MODIFICATION CONSISTING OF A FULL-SPAN FLAP AND A PARTIAL-SPAN CHORD-EXTENSION ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT HIGH SUBSONIC SPEEDS OF A MODEL WITH A 45° SWEPTBACK WING. William D. Morrison, Jr., and William J. Alford, Jr. June 1957. 37p. diagrs., photo., tab. (NACA TN 3952. Supersedes RM L53E06)

(1.2.2.2.1) Profiles

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - INVESTIGATION AT A MACH NUMBER OF 1.53 TO DETERMINE THE EFFECTS OF CAMBERING AND TWISTING THE WING FOR UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. Robert T. Madden. May 6, 1949. 33p. diagrs., photo., tabs. (NACA RM A9C07)

A COMPARISON OF THE EXPERIMENTAL AND THEORETICAL LOADING OVER TRIANGULAR WINGS AT SUPERSONIC SPEEDS. John W. Boyd and E. Ray Phelps. January 3, 1951. 42p. diagrs., photos., tabs. (NACA RM A50J17)

AERODYNAMIC CHARACTERISTICS OF WINGS DESIGNED FOR STRUCTURAL IMPROVEMENTS. Joseph Weil and Edward C. Polhamus. May 28, 1951. 12p. diagrs. (NACA RM L51E10a)

LOW-SPEED CHARACTERISTICS OF A WING HAVING 63° SWEEPBACK AND UNIFORM CAMBER. Leonard M. Rose. June 26, 1951. 18p. diagrs., photo., tabs. (NACA RM A51D25)

CHARACTERISTICS OF SWEPT WINGS AT HIGH SPEEDS. Charles J. Donlan and Joseph Weil. January 1952. 19p. diagrs. (NACA RM L52A15)

SOME EFFECTS OF AEROELASTICITY AT MACH NUMBERS FROM 0.7 TO 1.6 ON THE ROLLING EFFECTIVENESS OF THIN FLAT-PLATE DELTA WINGS HAVING 45° SWEPT LEADING EDGES AND FULL-SPAN CONSTANT-CHORD AILERONS. Edward T. Marley and Roland D. English. February 1952. 14p. diagrs., photo. (NACA RM L51L05)

A COMPARISON OF THE CHORDWISE PRESSURE DISTRIBUTION AND SPANWISE DISTRIBUTION OF LOADING AT SUBSONIC SPEEDS ON TWO TRIANGULAR WINGS OF ASPECT RATIO 2 HAVING NACA 0005 AND 0008 SECTIONS. Donald W. Smith and Verlin D. Reed. May 1952. 142p. diagrs., photo., tabs. (NACA RM A51L21)

AERODYNAMIC CHARACTERISTICS OF TWO PLANE, UNSWEPT TAPERED WINGS OF ASPECT RATIO 3 AND 3-PERCENT THICKNESS FROM TESTS ON TRANSONIC BUMP. Horace F. Emerson and Bernard M. Gale. May 1952. 23p. diagrs., photo. (NACA RM A52C07)

EFFECTS OF CHORD DISCONTINUITIES AND CHORDWISE FENCES ON LOW-SPEED STATIC LONGITUDINAL STABILITY OF AN AIRPLANE MODEL HAVING A 35° SWEPTBACK WING. Byron M. Jaquet. June 1952. 54p. photos., diagrs., tab. (NACA RM L52C25)

TRANSONIC AERODYNAMIC CHARACTERISTICS OF THREE THIN TRIANGULAR WINGS AND A TRAPEZOIDAL WING, ALL OF LOW ASPECT RATIO. Horace F. Emerson and Bernard M. Gale. July 1952. 35p. diagrs., photos. (NACA RM A52D21)

EFFECTS OF THREE TYPES OF BLUNT TRAILING EDGES ON THE AERODYNAMIC CHARACTERISTICS OF A PLANE TAPERED WING OF ASPECT RATIO 3.1, WITH A 3-PERCENT-THICK BICONVEX SECTION. Duane W. Dugan. July 1952. 34p. diagrs. (NACA RM A52E01)

INVESTIGATION AT A MACH NUMBER OF 1.2 OF TWO 45° SWEPTBACK WINGS UTILIZING NACA 2-006 AND NACA 65A006 AIRFOIL SECTIONS. Homer B. Wilson, Jr. September 1952. 20p. diagrs., photo., tab. (NACA RM L52G17)

SOME EFFECTS OF SPOILER HEIGHT, WING FLEXIBILITY, AND WING THICKNESS ON ROLLING EFFECTIVENESS AND DRAG OF UNSWEPT WINGS AT MACH NUMBERS BETWEEN 0.4 AND 1.7. E. M. Fields. October 1952. 20p. diagrs., photo. (NACA RM L52H18)

THE EFFECTS OF TIP-MOUNTED JET NACELLES ON THE TRANSONIC CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS. Charles F. Coe. December 1952. 81p. diagrs., photos., tabs. (NACA RM A52J21)

EFFECTS OF CHORD-EXTENSION AND DROOP OF COMBINED LEADING-EDGE FLAP AND CHORD-EXTENSION ON LOW-SPEED STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 35° SWEPTBACK WING WITH PLAIN FLAPS NEUTRAL OR DEFLECTED. Byron M. Jaquet. January 1953. 34p. diagrs., photos. (NACA RM L52K21a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - COMPARISON OF THREE WINGS OF ASPECT RATIO 2 OF RECTANGULAR, SWEPTBACK, AND TRIANGULAR PLAN FORM, INCLUDING EFFECTS OF THICKNESS DISTRIBUTION. Ronald C. Hightower. February 1953. 30p. diagrs., tabs. (NACA RM A52L02)

DAMPING-IN-PITCH CHARACTERISTICS AT HIGH SUBSONIC AND TRANSONIC SPEEDS OF FOUR 35° SWEPTBACK WINGS. William B. Kemp, Jr., and Robert E. Becht. October 1953. 21p. diagrs., tab. (NACA RM L53G29a)

A COMPARISON OF THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT MACH NUMBERS UP TO 0.94 OF SWEPTBACK WINGS HAVING NACA 4-DIGIT OR NACA 64A THICKNESS DISTRIBUTIONS. Fred B. Sutton and Jerald K. Dickson. August 1954. 67p. diagrs., tab. (NACA RM A54F18)

THE EFFECT OF WING PROFILE ON THE TRANSONIC CHARACTERISTICS OF RECTANGULAR AND TRIANGULAR WINGS HAVING ASPECT RATIOS OF 3 - TRANSONIC BUMP TECHNIQUE. Warren H. Nelson and Joseph L. Frank. October 1954. 33p. diagrs., photo., tab. (NACA RM A54H12a)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL FORCE AND MOMENT CHARACTERISTICS OF A PLANE AND A CAMBERED 3-PERCENT-THICK DELTA WING OF ASPECT RATIO 3 ON A SLENDER BODY. Dale L. Burrows and William E. Palmer. November 1954. 31p. diagrs., photos., tab. (NACA RM L54H25)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF LEADING-EDGE POROUS SUCTION ON A 4-PERCENT-THICK 60° DELTA WING. E. Carson Yates, Jr. March 1955. 73p. diagrs., photo., tabs. (NACA RM L54L21)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY OF TWO 45° SWEPTBACK WINGS AS INFLUENCED BY REYNOLDS NUMBERS UP TO 8.20×10^6 AND MACH NUMBERS UP TO 0.303. Gerald V. Foster and William C. Schneider. July 1955. 65p. diagrs. (NACA RM L55F06)

(1.2.2.2.2) Aspect Ratio

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS AT A MACH NUMBER OF 1.53 INCLUDING EFFECT OF SMALL VARIATIONS OF SWEEP. Robert T. Madden. January 26, 1949. 71p. diagrs., photos., tabs. (NACA RM A8J04)

TRANSONIC AERODYNAMIC CHARACTERISTICS OF THREE THIN TRIANGULAR WINGS AND A TRAPEZOIDAL WING, ALL OF LOW ASPECT RATIO. Horace F. Emerson and Bernard M. Gale. July 1952. 35p. diagrs., photos. (NACA RM A52D21)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

PRESSURE DISTRIBUTION AT LOW SPEED ON A MODEL INCORPORATING A W WING WITH ASPECT RATIO 6, 45° SWEEP, TAPER RATIO 0.6, AND AN NACA 65A009 AIRFOIL SECTION. Edward C. Polhamus and Albert G. Few, Jr. August 1952. 46p. diagrs., photo. (NACA RM L52F11)

THE EFFECTS OF TIP-MOUNTED JET NACELLES ON THE TRANSONIC CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS. Charles F. Coe. December 1952. 81p. diagrs., photos., tabs. (NACA RM A52J21)

AERODYNAMIC CHARACTERISTICS AT MACH NUMBER 4.04 OF A RECTANGULAR WING OF ASPECT RATIO 1.33 HAVING A 6-PERCENT-THICK CIRCULAR-ARC PROFILE AND A 30-PERCENT-CHORD FULL-SPAN TRAILING-EDGE FLAP. Robert W. Dunning and Edward F. Ulmann. May 1953. 26p. diagrs., tab. (NACA RM L53D03)

(1) AERODYNAMICS

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A RECTANGULAR WING OF ASPECT RATIO 2 OSCILLATING ABOUT THE MIDCHORD. Edward Widmayer, Jr., Sherman A. Clevenson, and Sumner A. Leadbetter. August 1953. 45p. diagrs., tabs. (NACA RM L53F19)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF TWO UNSWEPT WINGS OF HEXAGONAL AIRFOIL SECTIONS HAVING ASPECT RATIOS OF 2.5 AND 4.0 WITH FUSELAGE AND WITH HORIZONTAL TAIL LOCATED AT VARIOUS VERTICAL POSITIONS. William M. Hadaway and Patrick A. Cancro. October 1953. 29p. diagrs., photos. (NACA RM L53H14a)

SOME LOW-SPEED WIND-TUNNEL EXPERIMENTS PERTAINING TO THE LONGITUDINAL STABILITY CHARACTERISTICS OF A 35° SWEPT-WING MODEL AND AN UNSWEPT-WING MODEL. Byron M. Jaquet. October 1953. 43p. diagrs., photos., tab. (NACA RM L53H31)

THE EFFECTS OF CHANGES IN ASPECT RATIO AND TAIL HEIGHT ON THE LONGITUDINAL STABILITY CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A MODEL WITH A WING HAVING 32.6° SWEEPBACK. William J. Alford, Jr. and Thomas B. Pasteur, Jr. February 1954. 61p. diagrs., photos., tab. (NACA RM L53L09)

THE USE OF AREA SUCTION TO INCREASE THE EFFECTIVENESS OF A TRAILING-EDGE FLAP ON A TRIANGULAR WING OF ASPECT RATIO 2. Mark W. Kelly and William H. Tolhurst, Jr. April 1954. 44p. diagrs., photos. (NACA RM A54A25)

TESTS IN THE AMES 40- BY 80-FOOT WIND TUNNEL OF THE EFFECTS OF VARIOUS WING MODIFICATIONS ON THE LONGITUDINAL CHARACTERISTICS OF TWO TRIANGULAR-WING AIRPLANE MODELS WITH AND WITHOUT HORIZONTAL TAILS. David G. Koenig. April 1954. 29p. diagrs., tabs. (NACA RM A54B09)

A COMPARISON OF THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT MACH NUMBERS UP TO 0.94 OF SWEPTBACK WINGS HAVING NACA 4-DIGIT OR NACA 64A THICKNESS DISTRIBUTIONS. Fred B. Sutton and Jerald K. Dickson. August 1954. 67p. diagrs., tab. (NACA RM A54F18)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEEDS TO DETERMINE THE ROLLING-STABILITY DERIVATIVES OF THREE WING-FUSELAGE CONFIGURATIONS. William C. Sleeman, Jr. October 1954. 43p. diagrs. (NACA RM L54H11)

ON THE KERNEL FUNCTION OF THE INTEGRAL EQUATION RELATING THE LIFT AND DOWNWASH DISTRIBUTIONS OF OSCILLATING FINITE WINGS IN SUBSONIC FLOW. Charles E. Watkins, Harry L. Runyan and Donald S. Woolston. 1955. ii, 16p. tab. (NACA Rept. 1234. Supersedes TN 3131)

THE HYDRODYNAMIC CHARACTERISTICS OF MODIFIED RECTANGULAR FLAT PLATES HAVING ASPECT RATIOS OF 1.00, 0.25, AND 0.125 AND OPERATING NEAR A FREE WATER SURFACE. Kenneth L. Wadlin, John A. Ramsen, and Victor L. Vaughan, Jr. 1955. ii, 50p. diagrs., photos. (NACA Rept. 1246. Supersedes TN 3079; TN 3249)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF LEADING-EDGE POROUS SUCTION ON A 4-PERCENT-THICK 60° DELTA WING. E. Carson Yates, Jr. March 1955. 73p. diagrs., photo., tabs. (NACA RM L54L21)

EXPERIMENTAL FLUTTER INVESTIGATION OF A THIN UNSWEPT WING AT TRANSONIC SPEEDS. George L. Pratt. April 1955. 24p. diagrs., tabs. (NACA RM L55A18)

SOME FACTORS AFFECTING THE VARIATION OF PITCHING MOMENT WITH SIDESLIP OF AIRCRAFT CONFIGURATIONS. Edward C. Polhamus. July 1955. 29p. diagrs. (NACA RM L55E20b)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY OF TWO 45° SWEPT-BACK WINGS AS INFLUENCED BY REYNOLDS NUMBERS UP TO 8.20×10^6 AND MACH NUMBERS UP TO 0.303. Gerald V. Foster and William C. Schneider. July 1955. 65p. diagrs. (NACA RM L55F06)

ON THE KERNEL FUNCTION OF THE INTEGRAL EQUATION RELATING LIFT AND DOWNWASH DISTRIBUTIONS OF OSCILLATING WINGS IN SUPERSONIC FLOW. Charles E. Watkins and Julian H. Berman. 1956. ii, 18p. diagrs. (NACA Rept. 1257. Supersedes TN 3438)

THEORETICAL SPAN LOAD DISTRIBUTIONS AND ROLLING MOMENTS FOR SIDESLIPPING WINGS OF ARBITRARY PLAN FORM IN INCOMPRESSIBLE FLOW. M. J. Queijo. 1956. ii, 15p. diagrs. (NACA Rept. 1269. Supersedes TN 3605)

DRAG INTERFERENCE BETWEEN A POINTED CYLINDRICAL BODY AND TRIANGULAR WINGS OF VARIOUS ASPECT RATIOS AT MACH NUMBERS OF 1.50 AND 2.02. Elliott D. Katzen and George E. Kaattari. November 1956. 41p. diagrs., photos., tabs. (NACA TN 3794. Supersedes RM A51C27)

LIFT AND PITCHING-MOMENT INTERFERENCE BETWEEN A POINTED CYLINDRICAL BODY AND TRIANGULAR WINGS OF VARIOUS ASPECT RATIOS AT MACH NUMBERS OF 1.50 AND 2.02. Jack N. Nielsen, Elliott D. Katzen, and Kenneth K. Tang. December 1956. 49p. diagrs., photos., tabs. (NACA TN 3795. Supersedes RM A50F06)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A WING-TANK CONFIGURATION OSCILLATING IN PITCH ABOUT THE WING MIDCHORD. Sherman A. Clevenson and Sumner A. Leadbetter. December 1956. 37p. diagrs., photo., tab. (NACA TN 3822)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS TO DETERMINE THE EFFECT OF ASPECT RATIO AND END PLATES ON A RECTANGULAR WING WITH JET FLAPS DEFLECTED 85°. John G. Lowry and Raymond D. Vogler. December 1956. 21p. diagrs., tab. (NACA TN 3863)

A METHOD FOR PREDICTING LIFT INCREMENTS DUE TO FLAP DEFLECTION AT LOW ANGLES OF ATTACK IN INCOMPRESSIBLE FLOW. John G. Lowry and Edward C. Polhamus. January 1957. 29p. diagrs. (NACA TN 3911)

(1.2.2.2.3) Sweep

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS AT A MACH NUMBER OF 1.53 INCLUDING EFFECT OF SMALL VARIATIONS OF SWEEP. Robert T. Madden. January 26, 1949. 71p. diagrs., photos., tabs. (NACA RM A8J04)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - INVESTIGATION AT A MACH NUMBER OF 1.53 TO DETERMINE THE EFFECTS OF CAMBERING AND TWISTING THE WING FOR UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. Robert T. Madden. May 6, 1949. 33p. diagrs., photo., tabs. (NACA RM A9C07)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS OF SPLIT FLAPS, ELEVONS, AND LEADING-EDGE DEVICES AT LOW SPEED. Edward J. Hopkins. May 19, 1949. 46p. diagrs., photos. (NACA RM A9C21)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS FOR SYMMETRICAL WING SECTIONS AT HIGH SUBSONIC AND MODERATE SUPERSONIC MACH NUMBERS. Newton A. Mas. July 7, 1949. 28p. diagrs., photos. (NACA RM A9E09)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS THROUGHOUT THE SUBSONIC SPEED RANGE WITH THE WING CAMBERED AND TWISTED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. J. Lloyd Jones and Fred A. Demele. August 15, 1949. 41p. diagrs., photos., tab. (NACA RM A9D25)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS AT SUPERSONIC SPEEDS OF A MODEL WITH THE WING TWISTED AND CAMBERED FOR UNIFORM LOAD. Charles F. Hall and John C. Heitmeyer. January 9, 1950. 35p. diagrs., photo. (NACA RM A9J24)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTIVENESS OF AN ELEVON AS A LONGITUDINAL CONTROL AND THE EFFECTS OF CAMBER AND TWIST ON THE MAXIMUM LIFT-DRAG RATIO AT SUPERSONIC SPEEDS. Robert N. Olson and Merrill H. Mead. May 8, 1950. 53p. diagrs., photos. (NACA RM A50A31a)

SOME EFFECTS OF CHORDWISE FENCES ON THE AERODYNAMIC CHARACTERISTICS OF FOUR MODERATELY SWEPTBACK WINGS IN THE LOW-LIFT RANGE AT TRANSONIC MACH NUMBERS AND AT MACH NUMBER 1.9. Lawrence D. Guy. July 21, 1950. 22p. diagrs., photo., tab. (NACA RM L50E16)

FLIGHT INVESTIGATION AT MACH NUMBERS FROM 0.8 TO 1.4 TO DETERMINE THE ZERO-LIFT DRAG OF WINGS WITH "M" AND "W" PLAN FORMS. Ellis Katz, Edward T. Marley, and William B. Pepper. September 18, 1950. 23p. diagrs., photos., tab. (NACA RM L50G31)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECT OF SIDESLIP ON AERODYNAMIC CHARACTERISTICS AT A MACH NUMBER OF 1.4 WITH THE WING TWISTED AND CAMBERED. Henry C. Lessing. September 29, 1950. 28p. diagrs., photos. (NACA RM A50F09)

A SMALL-SCALE INVESTIGATION OF "M" AND "W" WINGS AT TRANSONIC SPEEDS. George S. Campbell and William D. Morrison, Jr. October 2, 1950. 30p. diagrs., photo., tab. (NACA RM L50H25a)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECT OF REYNOLDS NUMBER AT SUPERSONIC MACH NUMBERS ON THE LONGITUDINAL CHARACTERISTICS OF A WING TWISTED AND CAMBERED FOR UNIFORM LOAD. John C. Heitmeyer. October 9, 1950. 36p. diagrs., photo. (NACA RM A50G10)

THE USE OF AREA SUCTION FOR THE PURPOSE OF DELAYING SEPARATION OF AIR FLOW AT THE LEADING EDGE OF A 63° SWEPT-BACK WING. Woodrow L. Cook, Roy N. Griffin, Jr., and Gerald M. McCormack. November 22, 1950. 68p. diagrs., photo., tab. (NACA RM A50H09)

THE EFFECTS OF BOUNDARY-LAYER CONTROL ON THE LONGITUDINAL CHARACTERISTICS OF A SWEPT-BACK WING USING SUCTION THROUGH STREAMWISE SLOTS IN THE OUTBOARD PORTION OF THE WING. Gerald M. McCormack and William H. Tolhurst, Jr. January 5, 1951. 34p. diagrs., photo., tabs. (NACA RM A50K06)

INVESTIGATION OF THE EFFECTS OF LEADING-EDGE CHORD-EXTENSIONS ON THE AERODYNAMIC AND CONTROL CHARACTERISTICS OF TWO SWEPTBACK WINGS AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Ellery B. May, Jr. January 16, 1951. 25p. diagrs., photo. (NACA RM L50L06a)

(1) AERODYNAMICS

AERODYNAMIC CHARACTERISTICS OF WINGS DESIGNED FOR STRUCTURAL IMPROVEMENTS. Joseph Weil and Edward C. Polhamus. May 28, 1951. 12p. diagrs. (NACA RM L51E10a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH 3-PERCENT-THICK, BICONVEX SECTION. John C. Heitmeyer. June 8, 1951. 26p. diagrs., photo. (NACA RM A51D30)

LOW-SPEED CHARACTERISTICS OF A WING HAVING 63° SWEEPBACK AND UNIFORM CAMBER. Leonard M. Rose. June 26, 1951. 18p. diagrs., photo., tabs. (NACA RM A51D25)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH 3-PERCENT-THICK ROUNDED NOSE SECTION. John C. Heitmeyer and Ronald C. Hightower. August 1951. 17p. diagrs. (NACA RM A51F21)

INVESTIGATION OF MINIMUM DRAG AND MAXIMUM LIFT-DRAG RATIOS OF SEVERAL WING-BODY COMBINATIONS INCLUDING A CAMBERED TRIANGULAR WING AT LOW REYNOLDS NUMBERS AND AT SUPERSONIC SPEEDS. Clinton E. Brown and L. K. Hargrave. August 1951. 62p. diagrs., photos., tabs. (NACA RM L51E11)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 3 WITH NACA 0003-63 SECTION. John C. Heitmeyer. September 1951. 20p. diagrs. (NACA RM A51H02)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE 45° SWEPT-BACK WING OF ASPECT RATIO 3, TAPER RATIO 0.4 WITH 3-PERCENT-THICK, BICONVEX SECTION. John C. Heitmeyer. September 1951. 20p. diagrs. (NACA RM A51H10)

FLIGHT INVESTIGATION AT SUBSONIC, TRANSONIC, AND SUPERSONIC VELOCITIES OF THE HINGE-MOMENT CHARACTERISTICS, LATERAL-CONTROL EFFECTIVENESS, AND WING DAMPING IN ROLL OF A 60° SWEPTBACK DELTA WING WITH HALF-DELTA TIP AILERONS. (Revised.) C. William Martz and James D. Church. September 1951. 32p. diagrs., photos. (NACA RM L51G18)

DAMPING IN ROLL OF ROCKET-POWERED TEST VEHICLES HAVING SWEPT, TAPERED WINGS OF LOW ASPECT RATIO. E. Claude Sanders, Jr., and James L. Edmondson. October 1951. 25p. diagrs., photos., tab. (NACA RM L51G06)

EFFECTS OF REYNOLDS NUMBER ON THE AERODYNAMIC CHARACTERISTICS OF A DELTA WING AT MACH NUMBER OF 2.41. John E. Hatch, Jr., and L. Keith Hargrave. October 1951. 36p. diagrs., photos., tab. (NACA RM L51H06)

FREE-FLIGHT INVESTIGATION TO DETERMINE FORCE AND HINGE-MOMENT CHARACTERISTICS AT ZERO ANGLE OF ATTACK OF A 60° SWEPTBACK HALF-DELTA TIP CONTROL ON A 60° SWEPTBACK DELTA WING AT MACH NUMBERS BETWEEN 0.68 AND 1.44. C. William Martz, James D. Church, and John W. Goslee. December 1951. 36p. diagrs., photos. (NACA RM L51I14)

EFFECTS ON CONTROL EFFECTIVENESS OF SYSTEMATICALLY VARYING THE SIZE AND LOCATION OF TRAILING-EDGE FLAPS ON A 45° SWEPTBACK WING AT A MACH NUMBER OF 1.9. Carl R. Jacobsen. December 1951. 34p. diagrs., photo., tab. (NACA RM L51I26)

THE USE OF AREA SUCTION FOR THE PURPOSE OF DELAYING SEPARATION OF AIR FLOW AT THE LEADING EDGE OF A 63° SWEPT-BACK WING - EFFECTS OF CONTROLLING THE CHORDWISE DISTRIBUTION OF SUCTION-AIR VELOCITIES. Woodrow L. Cook and Mark W. Kelly. January 1952. 51p. diagrs., photo., tab. (NACA RM A51J24)

FREE-FLIGHT MEASUREMENTS OF SOME EFFECTS OF AILERON SPAN, CHORD, AND DEFLECTION AND OF WING FLEXIBILITY ON THE ROLLING EFFECTIVENESS OF AILERONS ON SWEPTBACK WINGS AT MACH NUMBERS BETWEEN 0.8 AND 1.6. Eugene D. Schult, H. Kurt Strass, and E. M. Fields. January 1952. 52p. diagrs., photos., tabs. (NACA RM L51K16)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SPOILERS OF LARGE PROJECTION ON AN NACA 65A006 WING WITH QUARTER-CHORD LINE SWEPT BACK 32.6°. Raymond D. Vogler. January 1952. 31p. diagrs., tab. (NACA RM L51L10)

CHARACTERISTICS OF SWEPT WINGS AT HIGH SPEEDS. Charles J. Donlan and Joseph Weil. January 1952. 19p. diagrs. (NACA RM L52A15)

SOME EFFECTS OF AEROELASTICITY AT MACH NUMBERS FROM 0.7 TO 1.6 ON THE ROLLING EFFECTIVENESS OF THIN FLAT-PLATE DELTA WINGS HAVING 45° SWEPT LEADING EDGES AND FULL-SPAN CONSTANT-CHORD AILERONS. Edward T. Marley and Roland D. English. February 1952. 14p. diagrs., photo. (NACA RM L51L05)

THE EFFECTS OF SUCTION THROUGH POROUS LEADING-EDGE SURFACES ON THE AERODYNAMIC CHARACTERISTICS OF A 47.5° SWEPTBACK WING-FUSELAGE COMBINATION AT A REYNOLDS NUMBER OF 4.4×10^6. Jerome Pasamanick and William I. Scallion. March 1952. 61p. diagrs., photo., tabs. (NACA RM L51K15)

EFFECTS OF CHORD DISCONTINUITIES AND CHORDWISE FENCES ON LOW-SPEED STATIC LONGITUDINAL STABILITY OF AN AIRPLANE MODEL HAVING A 35° SWEPTBACK WING. Byron M. Jaquet. June 1952. 54p. photos., diagrs., tab. (NACA RM L52C25)

TRANSONIC AERODYNAMIC CHARACTERISTICS OF THREE W-PLAN-FORM WINGS HAVING ASPECT RATIO 8, TAPER RATIO 0.45, AND NACA 63A-. SERIES AIRFOIL SECTIONS. William D. Morrison, Jr. July 1952. 30p. diagrs., photo. (NACA RM L52E14a)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

PRESSURE DISTRIBUTION AT LOW SPEED ON A MODEL INCORPORATING A W WING WITH ASPECT RATIO 6, 45° SWEEP, TAPER RATIO 0.6, AND AN NACA 65A009 AIRFOIL SECTION. Edward C. Polhamus and Albert G. Few, Jr. August 1952. 46p. diagrs., photo. (NACA RM L52F11)

AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION AND THE FUSELAGE ALONE OBTAINED IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Robert S. Osborne and John P. Mugler, Jr. September 1952. 71p. diagrs., photos., tabs. (NACA RM L52E14)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. SWEEP SERIES. Richard E. Kuhn and Paul G. Fournier. September 1952. 30p. diagrs., photos. (NACA RM L52G11a)

AERODYNAMIC LOAD MEASUREMENTS OVER A LEADING-EDGE SLAT ON A 40° SWEPTBACK WING AT MACH NUMBERS FROM 0.10 TO 0.91. Jones F. Cahill and Robert J. Nuber. September 1952. 32p. diagrs., photos., tab. (NACA RM L52G18a)

ROCKET-MODEL INVESTIGATION TO DETERMINE THE FORCE AND HINGE-MOMENT CHARACTERISTICS OF A HALF-DELTA TIP CONTROL ON A 59° SWEPTBACK DELTA WING BETWEEN MACH NUMBERS OF 0.55 AND 1.43. C. William Martz, James D. Church, and John W. Goslee. October 1952. 53p. diagrs., photos., tab. (NACA RM L52H06)

THE EFFECTS OF TIP-MOUNTED JET NACELLES ON THE TRANSONIC CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS. Charles F. Coe. December 1952. 81p. diagrs., photos., tabs. (NACA RM A52J21)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE CHARACTERISTICS OF A TWISTED AND CAMBERED 45° SWEPTBACK WING-FUSELAGE CONFIGURATION. Daniel E. Harrison. December 1952. 20p. diagrs. (NACA RM L52K18)

SMALL-SCALE TRANSONIC INVESTIGATION OF A 45° SWEPTBACK WING OF ASPECT RATIO 4 WITH COMBINATIONS OF NOSE-FLAP DEFLECTIONS AND WING TWIST. William J. Alford, Jr., and Kenneth P. Spreemann. January 1953. 23p. diagrs., photo. (NACA RM L52K13)

EFFECTS OF CHORD-EXTENSION AND DROOP OF COMBINED LEADING-EDGE FLAP AND CHORD-EXTENSION ON LOW-SPEED STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 35° SWEPTBACK WING WITH PLAIN FLAPS NEUTRAL OR DEFLECTED. Byron M. Jaquet. January 1953. 34p. diagrs., photos. (NACA RM L52K21a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - COMPARISON OF THREE WINGS OF ASPECT RATIO 2 OF RECTANGULAR, SWEPTBACK, AND TRIANGULAR PLAN FORM, INCLUDING EFFECTS OF THICKNESS DISTRIBUTION. Ronald C. Hightower. February 1953. 30p. diagrs., tabs. (NACA RM A52L02)

AN INVESTIGATION AT TRANSONIC SPEEDS OF THE EFFECTS OF FENCES, DROOPED NOSE, AND VORTEX GENERATORS ON THE AERODYNAMIC CHARACTERISTICS OF A WING-FUSELAGE COMBINATION HAVING A 6-PERCENT-THICK, 45° SWEPTBACK WING. Gerald Hieser. March 1953. 26p. diagrs., photos. (NACA RM L53B04)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. James W. Wiggins and Paul G. Fournier. April 1953. 25p. diagrs., photos. (NACA RM L53B25a)

A TRANSONIC INVESTIGATION BY THE FREE-FALL METHOD OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WING AND TAIL SURFACES. Stanley Faber and John M. Eggleston. June 1953. 41p. diagrs., photos., tabs. (NACA RM L53D10)

THE USE OF AREA SUCTION FOR THE PURPOSE OF IMPROVING TRAILING-EDGE FLAP EFFECTIVENESS ON A 35° SWEPTBACK WING. Woodrow L. Cook, Curt A. Holzhauser, and Mark W. Kelly. July 1953. 77p. diagrs., photos., tabs. (NACA RM A53E06)

TRANSONIC AERODYNAMIC CHARACTERISTICS IN PITCH OF A W-WING HAVING 60° 48' PANEL SWEEP, ASPECT RATIO 3.5, AND TAPER RATIO 0.25. William D. Morrison, Jr. August 1953. 18p. diagrs., photo. (NACA RM L53F22).

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL AND STATIC LATERAL STABILITY CHARACTERISTICS OF A WING-FUSELAGE COMBINATION HAVING A TRIANGULAR WING OF ASPECT RATIO 2.31 AND AN NACA 65A003 AIRFOIL. James W. Wiggins. August 1953. 28p. diagrs., photos. (NACA RM L53G09a)

INVESTIGATION OF THE EFFECTS OF LEADING-EDGE FLAPS ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT MACH NUMBERS FROM 0.40 TO 0.93 OF A WING-FUSELAGE CONFIGURATION WITH A 45° SWEPTBACK WING OF ASPECT RATIO 4. Kenneth P. Spreemann and William J. Alford, Jr. August 1953. 36p. diagrs., photo., tabs. (NACA RM L53G13)

(1) AERODYNAMICS

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS IN PITCH AND SIDESLIP AT HIGH SUBSONIC SPEEDS OF A WING-FUSELAGE COMBINATION HAVING A TRIANGULAR WING OF ASPECT RATIO 4. Paul G. Fournier. August 1953. 23p. diagrs., photos. (NACA RM L53G14a)

STATIC LATERAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 47.7° SWEPTBACK WING OF ASPECT RATIO 6 AND THE CONTRIBUTION OF VARIOUS MODEL COMPONENTS AT A REYNOLDS NUMBER OF 4.45×10^6. Roland F. Griner. September 1953. 83p. diagrs., photos., tabs. (NACA RM L53G09)

DAMPING-IN-PITCH CHARACTERISTICS AT HIGH SUBSONIC AND TRANSONIC SPEEDS OF FOUR 35° SWEPTBACK WINGS. William B. Kemp, Jr., and Robert E. Becht. October 1953. 21p. diagrs., tab. (NACA RM L53G29a)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A FENCE AND A LEADING-EDGE NOTCH ON THE AERODYNAMIC LOADING CHARACTERISTICS IN PITCH OF A 45° SWEPTBACK WING AT HIGH SUBSONIC SPEEDS. Richard E. Kuhn, James W. Wiggins, and Andrew L. Byrnes, Jr. October 1953. 56p. diagrs., photo., tabs. (NACA RM L53H24)

SOME LOW-SPEED WIND-TUNNEL EXPERIMENTS PERTAINING TO THE LONGITUDINAL STABILITY CHARACTERISTICS OF A 35° SWEPT-WING MODEL AND AN UNSWEPT-WING MODEL. Byron M. Jaquet. October 1953 43p. diagrs., photos., tab. (NACA RM L53H31)

WIND-TUNNEL INVESTIGATION OF A 45° SWEPTBACK WING HAVING A SYMMETRICAL ROOT AND A HIGHLY CAMBERED TIP, INCLUDING THE EFFECTS OF FENCES AND LATERAL CONTROLS. Joseph W. Cleary and Lee E. Boddy. November 1953. 52p. diagrs., photo. (NACA RM A53I21)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECT OF SPOILER PROFILE ON THE LATERAL CONTROL CHARACTERISTICS OF A WING-FUSELAGE COMBINATION WITH QUARTER-CHORD LINE SWEPT BACK 32.6° AND NACA 65A006 AIRFOIL SECTION. Harold S. Johnson. November 1953. 15p. diagrs. (NACA RM L53J05a)

THE USE OF A LEADING-EDGE AREA-SUCTION FLAP TO DELAY SEPARATION OF AIR FLOW FROM THE LEADING EDGE OF A 35° SWEPTBACK WING. Curt A. Holzhauser and Robert K. Martin. December 1953. 42p. diagrs., photos., tabs. (NACA RM A53J26)

AERODYNAMIC CHARACTERISTICS IN PITCH OF THREE STRUCTURALLY SIMILAR FLEXIBLE WINGS WITH 45° SWEEP: A SWEPTBACK WING, A WING WITH M PLAN FORM, AND A WING WITH W PLAN FORM. John W. McKee, Delwin R. Croom, and Rodger L. Naeseth. December 1953. 43p. diagrs., photos. (NACA RM L53J02a)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF LOCATION OF A DELTA AND A STRAIGHT TAIL ON THE LONGITUDINAL STABILITY AND CONTROL OF A THIN DELTA WING WITH EXTENDED DOUBLE SLOTTED FLAPS. John M. Riebe and Jean C. Graven, Jr. January 1954. 49p. diagrs., tabs. (NACA RM L53J26)

THE TWISTING EFFECT AT TRANSONIC SPEEDS OF SPOILER AILERONS ON A 45° SWEPTBACK, ASPECT-RATIO-4, TAPERED WING. Alexander D. Hammond and Jean C. Graven, Jr. January 1954. 21p. diagrs., photo. (NACA RM L53K03a)

THE EFFECTS OF CHANGES IN ASPECT RATIO AND TAIL HEIGHT ON THE LONGITUDINAL STABILITY CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A MODEL WITH A WING HAVING 32.6° SWEEPBACK. William J. Alford, Jr. and Thomas B. Pasteur, Jr. February 1954. 61p. diagrs., photos., tab. (NACA RM L53L09)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS TO DETERMINE THE ROLLING DERIVATIVES OF TWO WING-FUSELAGE COMBINATIONS HAVING TRIANGULAR WINGS, INCLUDING A SEMIEMPIRICAL METHOD OF ESTIMATING THE ROLLING DERIVATIVES. James W. Wiggins. February 1954. 32p. diagrs. (NACA RM L53L18a)

THE USE OF AREA SUCTION TO INCREASE THE EFFECTIVENESS OF A TRAILING-EDGE FLAP ON A TRIANGULAR WING OF ASPECT RATIO 2. Mark W. Kelly and William H. Tolhurst, Jr. April 1954. 44p. diagrs., photos. (NACA RM A54A25)

TESTS IN THE AMES 40- BY 80-FOOT WIND TUNNEL OF THE EFFECTS OF VARIOUS WING MODIFICATIONS ON THE LONGITUDINAL CHARACTERISTICS OF TWO TRIANGULAR-WING AIRPLANE MODELS WITH AND WITHOUT HORIZONTAL TAILS. David G. Koenig. April 1954. 29p. diagrs., tabs. (NACA RM A54B09)

ROCKET-POWERED-MODEL INVESTIGATION OF THE HINGE-MOMENT AND NORMAL-FORCE CHARACTERISTICS OF A HALF-DIAMOND TIP CONTROL ON A 60° SWEPTBACK DIAMOND WING BETWEEN MACH NUMBERS OF 0.5 AND 1.3. James D. Church. April 1954. 30p. diagrs., photos., tab. (NACA RM L54C10)

WIND-TUNNEL INVESTIGATION OF EFFECT OF SWEEP ON ROLLING DERIVATIVES AT ANGLES OF ATTACK UP TO 13° AND AT HIGH SUBSONIC MACH NUMBERS, INCLUDING A SEMIEMPIRICAL METHOD OF ESTIMATING THE ROLLING DERIVATIVES. James W. Wiggins. April 1954. 47p. diagrs., tab. (NACA RM L54C26)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING SWEPTBACK-, M-, W-, AND CRANKED-WING PLAN FORMS AND SEVERAL HORIZONTAL-TAIL LOCATIONS. Kenneth W. Goodson and Robert E. Becht. May 1954. 72p. diagrs., photo. (NACA RM L54C29)

A WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE LATERAL CONTROL CHARACTERISTICS OF VARIOUS PLAIN SPOILER CONFIGURATIONS ON A 3-PERCENT-THICK 60° DELTA WING. Harleth G. Wiley. May 1954. 45p. diagrs., tabs. (NACA RM L54D01)

AERODYNAMIC CHARACTERISTICS AT SMALL SCALE AND A MACH NUMBER OF 1.38 OF UNTAPERED WINGS HAVING M AND W PLAN FORMS. William B. Kemp, Jr. June 1954. 17p. diagrs., tab. (NACA RM L54D15a)

A COMPARISON OF THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT MACH NUMBERS UP TO 0.94 OF SWEPTBACK WINGS HAVING NACA 4-DIGIT OR NACA 64A THICKNESS DISTRIBUTIONS. Fred B. Sutton and Jerald K. Dickson. August 1954. 67p. diagrs., tab. (NACA RM A54F18)

PRESSURE DISTRIBUTIONS ON PLUG- AND SEMAPHORE-TYPE SPOILER AILERONS ON A 35° SWEPTBACK WING OF ASPECT RATIO 4, TAPER RATIO 0.6, AND NACA 65A006 AIRFOIL SECTION AT HIGH SUBSONIC SPEEDS. Alexander D. Hammond and William C. Hayes, Jr. August 1954. 55p. diagrs., tabs. (NACA RM L54F08)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEEDS TO DETERMINE THE ROLLING-STABILITY DERIVATIVES OF THREE WING-FUSELAGE CONFIGURATIONS. William C. Sleeman, Jr. October 1954. 43p. diagrs. (NACA RM L54H11)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING CROPPED-DELTA, SWEPT, AND UNSWEPT WINGS AND SEVERAL HORIZONTAL-TAIL HEIGHTS. Kenneth W. Goodson and Robert E. Becht. October 1954. 44p. diagrs. (NACA RM L54H12)

AN INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE PRESSURE DISTRIBUTIONS ON A 45° SWEPTBACK VERTICAL TAIL IN SIDESLIP WITH AND WITHOUT A 45° SWEPTBACK HORIZONTAL TAIL LOCATED ON THE FUSELAGE CENTER LINE. Harleth G. Wiley and William C. Moseley, Jr. November 1954. 81p. diagrs., photos., 7 tabs. (NACA RM L54H23)

EFFECT OF A WING LEADING-EDGE FLAP AND CHORD-EXTENSION ON THE HIGH SUBSONIC CONTROL CHARACTERISTICS OF A SPOILER-SLOT-DEFLECTOR CONTROL LOCATED AT TWO SPANWISE POSITIONS. Robert F. Thompson and Robert T. Taylor. November 1954. 73p. diagrs., photo., tabs. (NACA RM L54I09)

TESTS IN THE AMES 40- BY 80-FOOT WIND TUNNEL OF THE AERODYNAMIC CHARACTERISTICS OF AIRPLANE MODELS WITH PLAIN SPOILER AILERONS. Ralph W. Franks. December 1954. 47p. diagrs., photo., tabs. (NACA RM A54H26)

A PRELIMINARY INVESTIGATION OF THE USE OF CIRCULATION CONTROL TO INCREASE THE LIFT OF A 45° SWEPTBACK WING BY SUCTION THROUGH TRAILING-EDGE SLOTS. Woodrow L. Cook, Roy N. Griffin, Jr., and David H. Hickey. December 1954. 56p. diagrs., photo., tabs. (NACA RM A54I21)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF THE LIFT AND HINGE-MOMENT CHARACTERISTICS OF A FLAP WITH ATTACHED BALANCING TAB ON A 45° SWEPTBACK WING. Raymond D. Vogler. December 1954. 63p. diagrs. (NACA RM L54J28a)

AERODYNAMIC LOADING CHARACTERISTICS IN SIDESLIP OF A 45° SWEPTBACK WING WITH AND WITHOUT A FENCE AT HIGH SUBSONIC SPEEDS. Richard E. Kuhn and Andrew L. Byrnes, Jr. January 1955. 40p. diagrs., photo., tab. (NACA RM L54K15)

EFFECTS OF SPANWISE LOCATION OF SWEEP DISCONTINUITY ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL WITH WINGS OF M AND W PLAN FORM. Paul G. Fournier. January 1955. 44p. diagrs., photo., tab. (NACA RM L54K23)

A LOW-SPEED INVESTIGATION OF A THIN 60° DELTA WING EQUIPPED WITH A DOUBLE SLOTTED FLAP TO DETERMINE THE CHORDWISE PRESSURE DISTRIBUTION AND THE EFFECT OF VANE SIZE. Delwin R. Croom. March 1955. 42p. diagrs., tabs. (NACA RM L54L03a)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF LEADING-EDGE POROUS SUCTION ON A 4-PERCENT-THICK 60° DELTA WING. E. Carson Yates, Jr. March 1955. 73p. diagrs., photo., tabs. (NACA RM L54L21)

EXPERIMENTAL DETERMINATION OF THE AERODYNAMIC DERIVATIVES ARISING FROM ACCELERATION IN SIDESLIP FOR A TRIANGULAR, A SWEPT, AND AN UNSWEPT WING. Donald R. Riley, John D. Bird, and Lewis R. Fisher. March 1955. 27p. diagrs., photos. (NACA RM L55A07)

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF A WING HAVING 63° SWEEPBACK AND A DROOPED TIP. James R. Blackaby. April 1955. 25p. diagrs., photos., tab. (NACA RM A55B14)

EFFECTS OF SPANWISE LOCATION OF SWEEP DISCONTINUITY ON THE LOW-SPEED STATIC LATERAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL WITH WINGS OF M AND W PLAN FORM. Paul G. Fournier. May 1955. 33p. diagrs., photo. (NACA RM L55D22)

SOME FACTORS AFFECTING THE VARIATION OF PITCHING MOMENT WITH SIDESLIP OF AIRCRAFT CONFIGURATIONS. Edward C. Polhamus. July 1955. 29p. diagrs. (NACA RM L55E20b)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECTS OF LEADING-EDGE RADIUS ON THE AERODYNAMIC CHARACTERISTICS OF A SWEPTBACK-WING—FUSELAGE COMBINATION WITH LEADING-EDGE FLAPS AND CHORD-EXTENSIONS. Kenneth P. Spreemann. July 1955. 42p. diagrs., photo., tabs. (NACA RM L55E25a)

LOW-SPEED STUDY OF THE EFFECT OF FREQUENCY ON THE STABILITY DERIVATIVES OF WINGS OSCILLATING IN YAW WITH PARTICULAR REFERENCE TO HIGH ANGLE-OF-ATTACK CONDITIONS. John P. Campbell, Joseph L. Johnson, Jr., and Donald E. Hewes. November 1955. 93p. diagrs., photos., tab. (NACA RM L55H05)

THEORETICAL SPAN LOAD DISTRIBUTIONS AND ROLLING MOMENTS FOR SIDESLIPPING WINGS OF ARBITRARY PLAN FORM IN INCOMPRESSIBLE FLOW. M. J. Queijo. 1956. ii, 15p. diagrs. (NACA Rept. 1269. Supersedes TN 3605)

WIND-TUNNEL AND FLIGHT INVESTIGATIONS OF THE USE OF LEADING-EDGE AREA SUCTION FOR THE PURPOSE OF INCREASING THE MAXIMUM LIFT COEFFICIENT OF A 35° SWEPT-WING AIRPLANE. Curt A. Holzhauser and Richard S. Bray. 1956. ii, 24p. diagrs., photos., tabs. (NACA Rept. 1276. Supersedes RM A52G17; RM A55C07)

LOW-SPEED STATIC STABILITY CHARACTERISTICS OF A COMPLETE MODEL WITH AN M-WING IN MID AND HIGH POSITIONS AND WITH THREE HORIZONTAL-TAIL HEIGHTS. Paul G. Fournier. January 1956. 32p. diagrs. (NACA RM L55J06)

PRELIMINARY MEASUREMENTS OF THE AERODYNAMIC YAWING DERIVATIVES OF A TRIANGULAR, A SWEPT, AND AN UNSWEPT WING PERFORMING PURE YAWING OSCILLATIONS, WITH A DESCRIPTION OF THE INSTRUMENTATION EMPLOYED. M. J. Queijo, Herman S. Fletcher, C. G. Marple, and F. M. Hughes. April 1956. 35p. diagrs., photos. (NACA RM L55L14)

LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING WITH DOUBLE SLOTTED FLAPS. Rodger L. Naeseth. April 1956. 31p. diagrs., tabs. (NACA RM L56A10)

EXPERIMENTAL DETERMINATION OF THE EFFECTS OF FREQUENCY AND AMPLITUDE ON THE LATERAL STABILITY DERIVATIVES FOR A DELTA, A SWEPT, AND AN UNSWEPT WING OSCILLATING IN YAW. Lewis R. Fisher. April 1956. 67p. diagrs., photos. (NACA RM L56A19)

THE INTERFERENCE EFFECTS OF A BODY ON THE SPANWISE LOAD DISTRIBUTIONS OF TWO 45° SWEPTBACK WINGS OF ASPECT RATIO 8.02 FROM LOW-SPEED TESTS. Albert P. Martina. August 1956. 47p. diagrs., photo., tabs. (NACA TN 3730. Supersedes RM L51K23)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE SUBSONIC-FLOW FIELDS BENEATH SWEPT AND UNSWEPT WINGS WITH TABLES OF VORTEX-INDUCED VELOCITIES. William J. Alford, Jr. August 1956. 91p. diagrs., photo., tabs. (NACA TN 3738)

FLIGHT INVESTIGATION OF THE STABILITY AND CONTROL CHARACTERISTICS OF A VERTICALLY RISING AIRPLANE RESEARCH MODEL WITH SWEPT OR UNSWEPT WINGS AND ×- OR +-TAILS. Robert H. Kirby. October 1956. 30p. diagrs., photos. (NACA TN 3812)

EXPERIMENTAL STEADY-STATE YAWING DERIVATIVES OF A 60° DELTA-WING MODEL AS AFFECTED BY CHANGES IN VERTICAL POSITION OF THE WING AND IN RATIO OF FUSELAGE DIAMETER TO WING SPAN. Byron M. Jaquet and Herman S. Fletcher. October 1956. 20p. diagrs., tab. (NACA TN 3843)

EXPERIMENTAL INVESTIGATION AT LOW SPEED OF THE EFFECTS OF WING POSITION ON THE STATIC STABILITY OF MODELS HAVING FUSELAGES OF VARIOUS CROSS SECTION AND UNSWEPT AND 45° SWEPTBACK SURFACES. William Letko. November 1956. 77p. diagrs., photo., tabs. (NACA TN 3857)

SUBSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECT OF FUSELAGE AFTERBODY ON DIRECTIONAL STABILITY OF WING-FUSELAGE COMBINATIONS AT HIGH ANGLES OF ATTACK. Edward C. Polhamus and Kenneth P. Spreemann. December 1956. 25p. diagrs., photo., tab. (NACA TN 3896)

A METHOD FOR PREDICTING LIFT INCREMENTS DUE TO FLAP DEFLECTION AT LOW ANGLES OF ATTACK IN INCOMPRESSIBLE FLOW. John G. Lowry and Edward C. Polhamus. January 1957. 29p. diagrs. (NACA TN 3911)

COMPARISON OF CALCULATED AND EXPERIMENTAL LOAD DISTRIBUTIONS ON THIN WINGS AT HIGH SUBSONIC AND SONIC SPEEDS. John L. Crigler. January 1957. 46p. diagrs., tab. (NACA TN 3941)

INVESTIGATION OF THE EFFECTS OF LEADING-EDGE CHORD-EXTENSIONS AND FENCES IN COMBINATION WITH LEADING-EDGE FLAPS ON THE AERODYNAMIC CHARACTERISTICS AT MACH NUMBERS FROM 0.40 TO 0.93 OF A 45° SWEPTBACK WING OF ASPECT RATIO 4. Kenneth P. Spreemann and William J. Alford, Jr. April 1957. 45p. diagrs., photo., tabs. (NACA TN 3845. Supersedes RM L53A09a)

EFFECTS OF FUSELAGE NOSE LENGTH AND A CANOPY ON THE STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF 45° SWEPTBACK AIRPLANE MODELS HAVING FUSELAGES WITH SQUARE CROSS SECTIONS. Byron M. Jaquet and H. S. Fletcher. April 1957. 47p. diagrs., photos., tabs. (NACA TN 3961)

SOME EFFECTS OF TAIL HEIGHT AND WING PLAN FORM ON THE STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A SMALL-SCALE MODEL AT HIGH SUBSONIC SPEEDS. Albert G. Few, Jr., and Thomas J. King, Jr. May 1957. 62p. diagrs., photo. (NACA TN 3957. Supersedes RM L54G12)

EFFECTS OF HORIZONTAL-TAIL POSITION AND A WING LEADING-EDGE MODIFICATION CONSISTING OF A FULL-SPAN FLAP AND A PARTIAL-SPAN CHORD-EXTENSION ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT HIGH SUBSONIC SPEEDS OF A MODEL WITH A 45° SWEPTBACK WING. William D. Morrison, Jr., and William J. Alford, Jr. June 1957. 37p. diagrs., photo., tab. (NACA TN 3952. Supersedes RM L53E06)

COMPRESSIBLE LAMINAR BOUNDARY LAYER OVER A YAWED INFINITE CYLINDER WITH HEAT TRANSFER AND ARBITRARY PRANDTL NUMBER. Eli Reshotko and Ivan E. Beckwith. June 1957. (i), 86p. diagrs., tabs. (NACA TN 3986)

(1.2.2.2.4) Taper and Twist

FLIGHT INVESTIGATION TO DETERMINE THE AERODYNAMIC CHARACTERISTICS OF ROCKET-POWERED MODELS REPRESENTATIVE OF A FIGHTER-TYPE AIRPLANE CONFIGURATION INCORPORATING AN INVERSE-TAPER WING AND A VEE TAIL. Sidney R. Alexander. November 2, 1948. 29p. diagrs., photos., tab. (NACA RM L8G29)

CHARACTERISTICS OF SWEPT WINGS AT HIGH SPEEDS. Charles J. Donlan and Joseph Weil. January 1952. 19p. diagrs. (NACA RM L52A15)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

THE EFFECTS OF TIP-MOUNTED JET NACELLES ON THE TRANSONIC CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS. Charles F. Coe. December 1952. 81p. diagrs., photos., tabs. (NACA RM A52J21)

SMALL-SCALE TRANSONIC INVESTIGATION OF A 45° SWEPTBACK WING OF ASPECT RATIO 4 WITH COMBINATIONS OF NOSE-FLAP DEFLECTIONS AND WING TWIST. William J. Alford, Jr., and Kenneth P. Spreemann. January 1953. 23p. diagrs., photo. (NACA RM L52K13)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. James W. Wiggins and Paul G. Fournier. April 1953. 25p. diagrs., photos. (NACA RM L53B25a)

THEORETICAL SPAN LOAD DISTRIBUTIONS AND ROLLING MOMENTS FOR SIDESLIPPING WINGS OF ARBITRARY PLAN FORM IN INCOMPRESSIBLE FLOW. M. J. Queijo. 1956. ii, 15p. diagrs. (NACA Rept. 1269. Supersedes TN 3605)

THE INTERFERENCE EFFECTS OF A BODY ON THE SPANWISE LOAD DISTRIBUTIONS OF TWO 45° SWEPTBACK WINGS OF ASPECT RATIO 8.02 FROM LOW-SPEED TESTS. Albert P. Martina. August 1956. 47p. diagrs., photo., tabs. (NACA TN 3730. Supersedes RM L51K23)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS IN PITCH OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. Thomas J. King, Jr., and Thomas B. Pasteur, Jr. December 1956. 36p. diagrs., photos., tab. (NACA TN 3867. Supersedes RM L53E20)

A METHOD FOR PREDICTING LIFT INCREMENTS DUE TO FLAP DEFLECTION AT LOW ANGLES OF ATTACK IN INCOMPRESSIBLE FLOW. John G. Lowry and Edward C. Polhamus. January 1957. 29p. diagrs. (NACA TN 3911)

SOME EFFECTS OF TAIL HEIGHT AND WING PLAN FORM ON THE STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A SMALL-SCALE MODEL AT HIGH SUBSONIC SPEEDS. Albert G. Few, Jr., and Thomas J. King, Jr. May 1957. 62p. diagrs., photo. (NACA TN 3957. Supersedes RM L54G12)

(1.2.2.2.5) Inlets and Exits

EXPERIMENTAL INVESTIGATION OF A TWO-DIMENSIONAL SPLIT-WING RAM-JET INLET AT MACH NUMBER OF 3.85. James F. Connors and Richard R. Woollett. August 1952. 28p. diagrs., photos. (NACA RM E52F04)

(1.2.2.2.6) Surface Conditions

AERODYNAMIC CHARACTERISTICS OF TWO PLANE, UNSWEPT TAPERED WINGS OF ASPECT RATIO 3 AND 3-PERCENT THICKNESS FROM TESTS ON TRANSONIC BUMP. Horace F. Emerson and Bernard M. Gale. May 1952. 23p. diagrs., photo. (NACA RM A52C07)

DAMPING-IN-PITCH CHARACTERISTICS AT HIGH SUBSONIC AND TRANSONIC SPEEDS OF FOUR 35° SWEPTBACK WINGS. William B. Kemp, Jr., and Robert E. Becht. October 1953. 21p. diagrs., tab. (NACA RM L53G29a)

SOME EFFECTS OF LEADING-EDGE ROUGHNESS ON THE AILERON EFFECTIVENESS AND DRAG OF A THIN RECTANGULAR WING EMPLOYING A FULL-SPAN PLAIN AILERON AT MACH NUMBERS FROM 0.6 TO 1.5. Roland D. English. November 1953. 16p. diagrs., photos. (NACA RM L53I25)

AERODYNAMIC CHARACTERISTICS AT SMALL SCALE AND A MACH NUMBER OF 1.38 OF UNTAPERED WINGS HAVING M AND W PLAN FORMS. William B. Kemp, Jr. June 1954. 17p. diagrs., tab. (NACA RM L54D15a)

EXPERIMENTAL INVESTIGATION ON THE LANGLEY HELICOPTER TEST TOWER OF COMPRESSIBILITY EFFECTS ON A ROTOR HAVING NACA 63_2-015 AIRFOIL SECTIONS. James P. Shivers and Paul J. Carpenter. December 1956. 28p. diagrs., photo. (NACA TN 3850)

(1.2.2.2.7) Dihedral

INFLUENCE OF END PLATES ON LIFT AND FLOW FIELD OF A CANARD-TYPE CONTROL SURFACE AT A MACH NUMBER OF 2.00. George A. Wise. March 1953. 14p. photos., diagrs. (NACA RM E53A02)

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF A WING HAVING 63° SWEEPBACK AND A DROOPED TIP. James R. Blackaby. April 1955. 25p. diagrs., photos., tab. (NACA RM A55B14)

(1.2.2.3) HIGH-LIFT DEVICES

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF A WING SWEPT BACK 63° AND TWISTED AND CAMBERED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.5. James A. Weiberg and Hubert C. Carel. May 9, 1950. 53p. diagrs., photos., tabs. (NACA RM A50A23)

(1) AERODYNAMICS

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF A WING SWEPT BACK 63° AND TWISTED AND CAMBERED FOR UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.5 AND WITH A THICKENED TIP SECTION. James A. Weiberg and Hubert C. Carel. November 21, 1950. 42p. diagrs., photo., tabs. (NACA RM A50I14)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

THE USE OF AREA SUCTION FOR THE PURPOSE OF IMPROVING TRAILING-EDGE FLAP EFFECTIVENESS ON A 35° SWEPTBACK WING. Woodrow L. Cook, Curt A. Holzhauser, and Mark W. Kelly. July 1953. 77p. diagrs., photos., tabs. (NACA RM A53E06)

THE USE OF A LEADING-EDGE AREA-SUCTION FLAP TO DELAY SEPARATION OF AIR FLOW FROM THE LEADING EDGE OF A 35° SWEPTBACK WING. Curt A. Holzhauser and Robert K. Martin. December 1953. 42p. diagrs., photos., tabs. (NACA RM A53J26)

A PRELIMINARY INVESTIGATION OF THE USE OF CIRCULATION CONTROL TO INCREASE THE LIFT OF A 45° SWEPTBACK WING BY SUCTION THROUGH TRAILING-EDGE SLOTS. Woodrow L. Cook, Roy N. Griffin, Jr., and David H. Hickey. December 1954. 56p. diagrs., photo., tabs. (NACA RM A54I21)

ESTIMATION OF INCREMENTAL PITCHING MOMENTS DUE TO TRAILING-EDGE FLAPS ON SWEPT AND TRIANGULAR WINGS. Harry A. James and Lynn W. Hunton. June 1955. 31p. diagrs., tab. (NACA RM A55D07)

FULL-SCALE WIND TUNNEL TESTS OF A 35° SWEPTBACK WING AIRPLANE WITH HIGH-VELOCITY BLOWING OVER THE TRAILING-EDGE FLAPS. Mark W. Kelly and William H. Tolhurst, Jr. November 1955. 49p. diagrs., photos., tab. (NACA RM A55I09)

INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL WING-PROPELLER COMBINATION AND OF THE WING AND PROPELLER SEPARATELY AT ANGLES OF ATTACK UP TO 90°. Richard E. Kuhn and John W. Draper. 1956. ii, 40p. diagrs., photos., tab. (NACA Rept. 1263. Supersedes TN 3304)

EFFECT OF AREA-SUCTION-TYPE BOUNDARY-LAYER CONTROL ON THE LANDING-APPROACH CHARACTERISTICS OF A 35° SWEPT-WING FIGHTER. George E. Cooper and Robert C. Innis. February 1956. 35p. diagrs., photos., tabs. (NACA RM A55K14)

FLIGHT MEASUREMENTS OF THE LOW-SPEED CHARACTERISTICS OF A 35° SWEPT-WING AIRPLANE WITH AREA-SUCTION BOUNDARY-LAYER CONTROL ON THE FLAPS. Seth B. Anderson and Hervey C. Quigley. February 1956. 35p. diagrs., photos., tab. (NACA RM A55K29)

THE INTERFERENCE EFFECTS OF A BODY ON THE SPANWISE LOAD DISTRIBUTIONS OF TWO 45° SWEPTBACK WINGS OF ASPECT RATIO 8.02 FROM LOW-SPEED TESTS. Albert P. Martina. August 1956. 47p. diagrs., photo., tabs. (NACA TN 3730. Supersedes RM L51K23)

FLIGHT MEASUREMENTS OF THE LOW-SPEED CHARACTERISTICS OF A 35° SWEPT-WING AIRPLANE WITH BLOWING-TYPE BOUNDARY-LAYER CONTROL ON THE TRAILING-EDGE FLAPS. Seth B. Anderson, Hervey C. Quigley, and Robert C. Innis. October 1956. 52p. diagrs., photos., tabs. (NACA RM A56G30)

EXPLORATORY INVESTIGATION OF THE EFFECTIVENESS OF BIPLANE WINGS WITH LARGE-CHORD DOUBLE SLOTTED FLAPS IN REDIRECTING A PROPELLER SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Robert H. Kirby. October 1956. 22p. diagrs., tab. (NACA TN 3800)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS TO DETERMINE THE EFFECT OF ASPECT RATIO AND END PLATES ON A RECTANGULAR WING WITH JET FLAPS DEFLECTED 85°. John G. Lowry and Raymond D. Vogler. December 1956. 21p. diagrs., tab. (NACA TN 3863)

WIND-TUNNEL INVESTIGATION OF JET-AUGMENTED FLAPS ON A RECTANGULAR WING TO HIGH MOMENTUM COEFFICIENTS. Vernard E. Lockwood, Thomas R. Turner, and John M. Riebe. December 1956. 51p. diagrs., tab. (NACA TN 3865)

WIND-TUNNEL INVESTIGATION OF AN EXTERNAL-FLOW JET-AUGMENTED SLOTTED FLAP SUITABLE FOR APPLICATION TO AIRPLANES WITH POD-MOUNTED JET ENGINES. John P. Campbell and Joseph L. Johnson, Jr. December 1956. 47p. diagrs., tab. (NACA TN 3898)

INVESTIGATION OF THE EFFECTIVENESS OF BOUNDARY-LAYER CONTROL BY BLOWING OVER A COMBINATION OF SLIDING AND PLAIN FLAPS IN DEFLECTING A PROPELLER SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Kenneth P. Spreemann and Richard E. Kuhn. December 1956. 44p. diagrs., photo. (NACA TN 3904)

INVESTIGATION OF EFFECTIVENESS OF A WING EQUIPPED WITH A 50-PERCENT-CHORD SLIDING FLAP, A 30-PERCENT-CHORD SLOTTED FLAP, AND A 30-PERCENT-CHORD SLAT IN DEFLECTING PROPELLER SLIPSTREAMS DOWNWARD FOR VERTICAL TAKE-OFF. Richard E. Kuhn. January 1957. 39p. diagrs., photo., tab. (NACA TN 3919)

WIND-TUNNEL INVESTIGATION OF EFFECT OF PROPELLER SLIPSTREAMS ON AERODYNAMIC CHARACTERISTICS OF A WING EQUIPPED WITH A 50-PERCENT-CHORD SLIDING FLAP AND A 30-PERCENT-CHORD SLOTTED FLAP. Richard E. Kuhn and William C. Hayes, Jr. February 1957. 72p. diagrs., photo., tab. (NACA TN 3918)

EFFECTS OF HORIZONTAL-TAIL POSITION AND A WING LEADING-EDGE MODIFICATION CONSISTING OF A FULL-SPAN FLAP AND A PARTIAL-SPAN CHORD-EXTENSION ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT HIGH SUBSONIC SPEEDS OF A MODEL WITH A 45° SWEPTBACK WING. William D. Morrison, Jr., and William J. Alford, Jr. June 1957. 37p. diagrs., photo., tab. (NACA TN 3952. Supersedes RM L53E06)

(1.2.2.3.1) Trailing-Edge Flaps

FLIGHT-TEST EVALUATION OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF 0.5-SCALE MODELS OF THE LARK PILOTLESS-AIRCRAFT CONFIGURATION. David G. Stone. February 6, 1948. 60p. diagrs., photos., tabs. (NACA RM L7I26)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS OF SPLIT FLAPS, ELEVONS, AND LEADING-EDGE DEVICES AT LOW SPEED. Edward J. Hopkins. May 19, 1949. 46p. diagrs., photos. (NACA RM A9C21)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTIVENESS OF AN ELEVON AS A LONGITUDINAL CONTROL AND THE EFFECTS OF CAMBER AND TWIST ON THE MAXIMUM LIFT-DRAG RATIO AT SUPERSONIC SPEEDS. Robert N. Olson and Merrill H. Mead. May 8, 1950. 53p. diagrs., photos. (NACA RM A50A31a)

EFFECTS ON CONTROL EFFECTIVENESS OF SYSTEMATICALLY VARYING THE SIZE AND LOCATION OF TRAILING-EDGE FLAPS ON A 45° SWEPTBACK WING AT A MACH NUMBER OF 1.9. Carl R. Jacobsen. December 1951. 34p. diagrs., photo., tab. (NACA RM L51I26)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

CONTROL CHARACTERISTICS OF TRAILING-EDGE SPOILERS ON UNTAPERED BLUNT TRAILING-EDGE WINGS OF ASPECT RATIO 2.7 WITH 0° AND 45° SWEEPBACK AT MACH NUMBERS OF 1.41 AND 1.96. Carl R. Jacobsen. December 1952. 35p. diagrs., photo. (NACA RM L52J28)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF A THIN 60° DELTA WING WITH DOUBLE SLOTTED, SINGLE SLOTTED, PLAIN, AND SPLIT FLAPS. John M. Riebe and Richard G. MacLeod. January 1953. 57p. diagrs., photo., tabs. (NACA RM L52J29)

EFFECTS OF CHORD-EXTENSION AND DROOP OF COMBINED LEADING-EDGE FLAP AND CHORD-EXTENSION ON LOW-SPEED STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 35° SWEPTBACK WING WITH PLAIN FLAPS NEUTRAL OR DEFLECTED. Byron M. Jaquet. January 1953. 34p. diagrs., photos. (NACA RM L52K21a)

SUBSONIC STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A WING-BODY COMBINATION HAVING A POINTED WING OF ASPECT RATIO 2 WITH CONSTANT-PERCENT-CHORD TRAILING-EDGE ELEVONS. Donald W. Smith and Verlin D. Reed. May 1953. 143p. diagrs., photos., tab. (NACA RM A53C20)

THE USE OF AREA SUCTION FOR THE PURPOSE OF IMPROVING TRAILING-EDGE FLAP EFFECTIVENESS ON A 35° SWEPTBACK WING. Woodrow L. Cook, Curt A. Holzhauser, and Mark W. Kelly. July 1953. 77p. diagrs., photos., tabs. (NACA RM A53E06)

STATIC LATERAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 47.7° SWEPTBACK WING OF ASPECT RATIO 6 AND THE CONTRIBUTION OF VARIOUS MODEL COMPONENTS AT A REYNOLDS NUMBER OF 4.45×10^6. Roland F. Griner. September 1953. 83p. diagrs., photos., tabs. (NACA RM L53G09)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF TWO UNSWEPT WINGS OF HEXAGONAL AIRFOIL SECTIONS HAVING ASPECT RATIOS OF 2.5 AND 4.0 WITH FUSELAGE AND WITH HORIZONTAL TAIL LOCATED AT VARIOUS VERTICAL POSITIONS. William M. Hadaway and Patrick A. Cancro. October 1953. 29p. diagrs., photos. (NACA RM L53H14a)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF LOCATION OF A DELTA HORIZONTAL TAIL ON THE LONGITUDINAL STABILITY AND CONTROL OF A FUSELAGE AND THIN DELTA WING WITH DOUBLE SLOTTED FLAPS INCLUDING THE EFFECTS OF A GROUND BOARD. John M. Riebe and Jean C. Graven, Jr. October 1953. 38p. diagrs., tabs. (NACA RM L53H19a)

THE USE OF A LEADING-EDGE AREA-SUCTION FLAP TO DELAY SEPARATION OF AIR FLOW FROM THE LEADING EDGE OF A 35° SWEPTBACK WING. Curt A. Holzhauser and Robert K. Martin. December 1953. 42p. diagrs., photos., tabs. (NACA RM A53J26)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF LOCATION OF A DELTA AND A STRAIGHT TAIL ON THE LONGITUDINAL STABILITY AND CONTROL OF A THIN DELTA WING WITH EXTENDED DOUBLE SLOTTED FLAPS. John M. Riebe and Jean C. Graven, Jr. January 1954. 49p. diagrs., tabs. (NACA RM L53J26)

A LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS OF TWO TYPES OF CONTROLS AND BALANCING TABS ON A LARGE-SCALE THIN DELTA-WING–FUSELAGE MODEL. Marvin P. Fink and Bennie W. Cocke. March 1954. 69p. diagrs., photo., tabs. (NACA RM L54B03)

(1) AERODYNAMICS

THE USE OF AREA SUCTION TO INCREASE THE EFFECTIVENESS OF A TRAILING-EDGE FLAP ON A TRIANGULAR WING OF ASPECT RATIO 2. Mark W. Kelly and William H. Tolhurst, Jr. April 1954. 44p. diagrs., photos. (NACA RM A54A25)

EFFECT ON THE LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A 49° SWEPTBACK WING HAVING AN ASPECT RATIO OF 3.78 OF BLOWING AIR OVER THE TRAILING-EDGE FLAP AND AILERON. Edward F. Whittle, Jr., and Stanley Lipson. April 1954. 51p. diagrs., photo., tab. (NACA RM L54C05)

THE EFFECT OF GROUND ON THE LOW-SPEED AERODYNAMIC, CONTROL, AND CONTROL HINGE-MOMENT CHARACTERISTICS OF A DELTA-WING—FUSELAGE MODEL WITH TRAILING-EDGE CONTROLS. William L. Scallion. September 1954. 52p. diagrs., photos., tabs. (NACA RM L54H03)

A PRELIMINARY INVESTIGATION OF THE USE OF CIRCULATION CONTROL TO INCREASE THE LIFT OF A 45° SWEPTBACK WING BY SUCTION THROUGH TRAILING-EDGE SLOTS. Woodrow L. Cook, Roy N. Griffin, Jr., and David H. Hickey. December 1954. 56p. diagrs., photo., tabs. (NACA RM A54I21)

THE EFFECTS OF TRAILING-EDGE FLAPS ON THE SUBSONIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Bruce E. Tinling and A. V. Karpen. January 1955. 37p. diagrs., photos., tabs. (NACA RM A54L07)

A LOW-SPEED INVESTIGATION OF A THIN 60° DELTA WING EQUIPPED WITH A DOUBLE SLOTTED FLAP TO DETERMINE THE CHORDWISE PRESSURE DISTRIBUTION AND THE EFFECT OF VANE SIZE. Delwin R. Croom. March 1955. 42p. diagrs., tabs. (NACA RM L54L03a)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF LEADING-EDGE POROUS SUCTION ON A 4-PERCENT-THICK 60° DELTA WING. E. Carson Yates, Jr. March 1955. 73p. diagrs., photo., tabs. (NACA RM L54L21)

SIMPLIFIED PROCEDURES FOR ESTIMATING FLAP-CONTROL LOADS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1955. 14p. diagrs. (NACA RM L55E12)

AN INVESTIGATION OF LOADS ON AILERONS AT TRANSONIC SPEEDS. Jack F. Runckel and W. H. Gray. May 1955. 8p. diagrs. (NACA RM L55E13)

ESTIMATION OF INCREMENTAL PITCHING MOMENTS DUE TO TRAILING-EDGE FLAPS ON SWEPT AND TRIANGULAR WINGS. Harry A. James and Lynn W. Hunton. June 1955. 31p. diagrs., tab. (NACA RM A55D07)

GROUND EFFECTS ON THE LONGITUDINAL CHARACTERISTICS OF TWO MODELS WITH WINGS HAVING LOW ASPECT RATIO AND POINTED TIPS. Donald A. Buell and Bruce E. Tinling. July 1955. 48p. diagrs., photos., tabs. (NACA RM A55E04)

AERODYNAMIC CHARACTERISTICS AND PRESSURE DISTRIBUTIONS OF A 6-PERCENT-THICK 49° SWEPTBACK WING WITH BLOWING OVER HALF-SPAN AND FULL-SPAN FLAPS. Edward F. Whittle, Jr., and H. Clyde McLemore. September 1955. 71p. diagrs., photo., tabs. (NACA RM L55F02)

FULL-SCALE WIND TUNNEL TESTS OF A 35° SWEPTBACK WING AIRPLANE WITH HIGH-VELOCITY BLOWING OVER THE TRAILING-EDGE FLAPS. Mark W. Keily and William H. Tolhurst, Jr. November 1955. 49p. diagrs., photos., tab. (NACA RM A55I09)

LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING WITH DOUBLE SLOTTED FLAPS. Rodger L. Naeseth. April 1956. 31p. diagrs., tabs. (NACA RM L56A10)

THE RESULTS OF WIND-TUNNEL TESTS TO A MACH NUMBER OF 0.90 OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10. George G. Edwards, Jerald K. Dickson, Fred B. Sutton, and Fred A. Demele. September 1956. 171p. diagrs., photo., tabs. (NACA TN 3789. Supersedes RM A53I28)

ANALYSIS OF WIND-TUNNEL TESTS TO A MACH NUMBER OF 0.90 OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10. George G. Edwards, Donald A. Buell, Fred A. Demele, and Fred B. Sutton. September 1956. 170p. diagrs., photos., tabs. (NACA TN 3790. Supersedes RM A54F14)

A STUDY OF SEVERAL FACTORS AFFECTING THE STABILITY CONTRIBUTED BY A HORIZONTAL TAIL AT VARIOUS VERTICAL POSITIONS ON A SWEPTBACK-WING AIRPLANE MODEL. Gerald V. Foster and Roland F. Griner. November 1956. 28p. diagrs., tab. (NACA TN 3848. Supersedes RM L9H19)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS TO DETERMINE THE EFFECT OF ASPECT RATIO AND END PLATES ON A RECTANGULAR WING WITH JET FLAPS DEFLECTED 85°. John G. Lowry and Raymond D. Vogler. December 1956. 21p. diagrs., tab. (NACA TN 3863)

A METHOD FOR PREDICTING LIFT INCREMENTS DUE TO FLAP DEFLECTION AT LOW ANGLES OF ATTACK IN INCOMPRESSIBLE FLOW. John G. Lowry and Edward C. Polhamus. January 1957. 29p. diagrs. (NACA TN 3911)

EFFECT OF PROPELLER LOCATION AND FLAP DEFLECTION ON THE AERODYNAMIC CHARACTERISTICS OF A WING-PROPELLER COMBINATION FOR ANGLES OF ATTACK FROM 0° TO 80°. William A. Newsom, Jr. January 1957. 45p. diagrs. (NACA TN 3917)

(1.2.2.3.2)
Slots and Slats

AN INVESTIGATION OF THE SPIN AND RECOVERY CHARACTERISTICS OF A 1/25-SCALE MODEL OF THE DOUGLAS D-558-II AIRPLANE. Stanley H. Scher and Lawrence J. Gale. January 18, 1949. 29p. diagrs., photos., tabs. (NACA RM L8K19a)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A LEADING-EDGE SLAT ON A MODIFIED-DOUBLE-WEDGE WING. Richard G. MacLeod. December 1951. 12p. diagrs. (NACA RM L51J22a)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

AERODYNAMIC LOAD MEASUREMENTS OVER A LEADING-EDGE SLAT ON A 40° SWEPTBACK WING AT MACH NUMBERS FROM 0.10 TO 0.91. Jones F. Cahill and Robert J. Nuber. September 1952. 32p. diagrs., photos., tab. (NACA RM L52G18a)

THE USE OF AREA SUCTION FOR THE PURPOSE OF IMPROVING TRAILING-EDGE FLAP EFFECTIVENESS ON A 35° SWEPTBACK WING. Woodrow L. Cook, Curt A. Holzhauser, and Mark W. Kelly. July 1953. 77p. diagrs., photos., tabs. (NACA RM A53E06)

EFFECT ON THE LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A 49° SWEPTBACK WING HAVING AN ASPECT RATIO OF 3.78 OF BLOWING AIR OVER THE TRAILING-EDGE FLAP AND AILERON. Edward F. Whittle, Jr., and Stanley Lipson. April 1954. 51p. diagrs., photo., tab. (NACA RM L54C05)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING SWEPTBACK-, M-, W-, AND CRANKED-WING PLAN FORMS AND SEVERAL HORIZONTAL-TAIL LOCATIONS. Kenneth W. Goodson and Robert E. Becht. May 1954. 72p. diagrs., photo. (NACA RM L54C29)

AERODYNAMIC CHARACTERISTICS AND PRESSURE DISTRIBUTIONS OF A 6-PERCENT-THICK 49° SWEPTBACK WING WITH BLOWING OVER HALF-SPAN AND FULL-SPAN FLAPS. Edward F. Whittle, Jr., and H. Clyde McLemore. September 1955. 71p. diagrs., photo., tabs. (NACA RM L55F02)

FULL-SCALE WIND TUNNEL TESTS OF A 35° SWEPTBACK WING AIRPLANE WITH HIGH-VELOCITY BLOWING OVER THE TRAILING-EDGE FLAPS. Mark W. Kelly and William H. Tolhurst, Jr. November 1955. 49p. diagrs., photos., tab. (NACA RM A55I09)

EFFECT OF PROPELLER LOCATION AND FLAP DEFLECTION ON THE AERODYNAMIC CHARACTERISTICS OF A WING-PROPELLER COMBINATION FOR ANGLES OF ATTACK FROM 0° TO 80°. William A. Newsom, Jr. January 1957. 45p. diagrs. (NACA TN 3917)

(1.2.2.3.3)
Leading-Edge Flaps

THE EFFECTS OF BOUNDARY-LAYER CONTROL ON THE LONGITUDINAL CHARACTERISTICS OF A SWEPT-BACK WING USING SUCTION THROUGH STREAMWISE SLOTS IN THE OUTBOARD PORTION OF THE WING. Gerald M. McCormack and William H. Tolhurst, Jr. January 5, 1951. 34p. diagrs., photo., tabs. (NACA RM A50K06)

INVESTIGATION OF THE EFFECTS OF LEADING-EDGE CHORD-EXTENSIONS ON THE AERODYNAMIC AND CONTROL CHARACTERISTICS OF TWO SWEPTBACK WINGS AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Ellery B. May, Jr. January 16, 1951. 25p. diagrs., photo. (NACA RM L50L06a)

CHARACTERISTICS OF SWEPT WINGS AT HIGH SPEEDS. Charles J. Donlan and Joseph Weil. January 1952. 19p. diagrs. (NACA RM L52A15)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

SMALL-SCALE TRANSONIC INVESTIGATION OF A 45° SWEPTBACK WING OF ASPECT RATIO 4 WITH COMBINATIONS OF NOSE-FLAP DEFLECTIONS AND WING TWIST. William J. Alford, Jr., and Kenneth P. Spreemann. January 1953. 23p. diagrs., photo. (NACA RM L52K13)

EFFECTS OF CHORD-EXTENSION AND DROOP OF COMBINED LEADING-EDGE FLAP AND CHORD-EXTENSION ON LOW-SPEED STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 35° SWEPTBACK WING WITH PLAIN FLAPS NEUTRAL OR DEFLECTED. Byron M. Jaquet. January 1953. 34p. diagrs., photos. (NACA RM L52K21a)

AN INVESTIGATION AT TRANSONIC SPEEDS OF THE EFFECTS OF FENCES, DROOPED NOSE, AND VORTEX GENERATORS ON THE AERODYNAMIC CHARACTERISTICS OF A WING-FUSELAGE COMBINATION HAVING A 6-PERCENT-THICK, 45° SWEPTBACK WING. Gerald Hieser. March 1953. 26p. diagrs., photos. (NACA RM L53B04)

EFFECT OF LEADING-EDGE CHORD-EXTENSIONS ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT MACH NUMBERS OF 0.40 TO 1.03. F. E. West, Jr., George Liner, and Gladys S. Martz. April 1953. 40p. diagrs., photo. (NACA RM L53B02)

INVESTIGATION OF THE EFFECTS OF LEADING-EDGE FLAPS ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT MACH NUMBERS FROM 0.40 TO 0.93 OF A WING-FUSELAGE CONFIGURATION WITH A 45° SWEPTBACK WING OF ASPECT RATIO 4. Kenneth P. Spreemann and William J. Alford, Jr. August 1953. 36p. diagrs., photo., tabs. (NACA RM L53G13)

STATIC LATERAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 47.7° SWEPTBACK WING OF ASPECT RATIO 6 AND THE CONTRIBUTION OF VARIOUS MODEL COMPONENTS AT A REYNOLDS NUMBER OF 4.45×10^6. Roland F. Griner. September 1953. 83p. diagrs., photos., tabs. (NACA RM L53G09)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF TWO UNSWEPT WINGS OF HEXAGONAL AIRFOIL SECTIONS HAVING ASPECT RATIOS OF 2.5 AND 4.0 WITH FUSELAGE AND WITH HORIZONTAL TAIL LOCATED AT VARIOUS VERTICAL POSITIONS. William M. Hadaway and Patrick A. Cancro. October 1953. 29p. diagrs., photos. (NACA RM L53H14a)

THE USE OF A LEADING-EDGE AREA-SUCTION FLAP TO DELAY SEPARATION OF AIR FLOW FROM THE LEADING EDGE OF A 35° SWEPTBACK WING. Curt A. Holzhauser and Robert K. Martin. December 1953. 42p. diagrs., photos., tabs. (NACA RM A53J26)

EFFECT OF A WING LEADING-EDGE FLAP AND CHORD-EXTENSION ON THE HIGH SUBSONIC CONTROL CHARACTERISTICS OF A SPOILER-SLOT-DEFLECTOR CONTROL LOCATED AT TWO SPANWISE POSITIONS. Robert F. Thompson and Robert T. Taylor. November 1954. 73p. diagrs., photo., tabs. (NACA RM L54I09)

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF A WING HAVING 63° SWEEPBACK AND A DROOPED TIP. James R. Blackaby. April 1955. 25p. diagrs., photos., tab. (NACA RM A55B14)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECTS OF LEADING-EDGE RADIUS ON THE AERODYNAMIC CHARACTERISTICS OF A SWEPTBACK-WING—FUSELAGE COMBINATION WITH LEADING-EDGE FLAPS AND CHORD-EXTENSIONS. Kenneth P. Spreemann. July 1955. 42p. diagrs., photo., tabs. (NACA RM L55E25a)

A STUDY OF SEVERAL FACTORS AFFECTING THE STABILITY CONTRIBUTED BY A HORIZONTAL TAIL AT VARIOUS VERTICAL POSITIONS ON A SWEPTBACK-WING AIRPLANE MODEL. Gerald V. Foster and Roland F. Griner. November 1956. 28p. diagrs., tab. (NACA TN 3848. Supersedes RM L9H19)

INVESTIGATION OF THE EFFECTS OF LEADING-EDGE CHORD-EXTENSIONS AND FENCES IN COMBINATION WITH LEADING-EDGE FLAPS ON THE AERODYNAMIC CHARACTERISTICS AT MACH NUMBERS FROM 0.40 TO 0.93 OF A 45° SWEPTBACK WING OF ASPECT RATIO 4. Kenneth P. Spreemann and William J. Alford, Jr. April 1957. 45p. diagrs., photo., tabs. (NACA TN 3845. Supersedes RM L53A09a)

(1.2.2.4) CONTROLS

COMPARATIVE TESTS OF THE ROLLING EFFECTIVENESS OF CONSTANT-CHORD, FULL-DELTA, AND HALF-DELTA AILERONS ON DELTA WINGS AT TRANSONIC AND SUPERSONIC SPEEDS. Carl A. Sandahl and H. Kurt Strass. December 12, 1949. 26p. diagrs., photos., tab. (NACA RM L9J26)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTIVENESS OF AN ELEVON AS A LONGITUDINAL CONTROL AND THE EFFECTS OF CAMBER AND TWIST ON THE MAXIMUM LIFT-DRAG RATIO AT SUPERSONIC SPEEDS. Robert N. Olson and Merrill H. Mead. May 8, 1950. 53p. diagrs., photos. (NACA RM A50A31a)

AERODYNAMIC CHARACTERISTICS OF TWO 25-PERCENT-AREA TRAILING-EDGE FLAPS ON AN ASPECT RATIO 2 TRIANGULAR WING AT SUBSONIC AND SUPERSONIC SPEEDS. John W. Boyd. July 1952. 82p. diagrs., photos., tabs. (NACA RM A52D01c)

LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS IN SIDESLIP OF A DELTA-WING-FUSELAGE MODEL WITH HORN-BALANCE-TYPE AILERONS AND WITH AND WITHOUT NACELLES. William I. Scallion. August 1953. 31p. diagrs., photo., tabs. (NACA RM L53G09b)

A LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS OF TWO TYPES OF CONTROLS AND BALANCING TABS ON A LARGE-SCALE THIN DELTA-WING—FUSELAGE MODEL. Marvin P. Fink and Bennie W. Cocke. March 1954. 69p. diagrs., photo., tabs. (NACA RM L54B03)

INVESTIGATION OF THE EFFECT OF BALANCING TABS ON THE HINGE-MOMENT CHARACTERISTICS OF A TRAILING-EDGE FLAP-TYPE CONTROL ON A TRAPEZOIDAL WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and Cornelius Driver. August 1954. 23p. diagrs., photo. (NACA RM L54F22)

THE EFFECT OF GROUND ON THE LOW-SPEED AERODYNAMIC, CONTROL, AND CONTROL HINGE-MOMENT CHARACTERISTICS OF A DELTA-WING—FUSELAGE MODEL WITH TRAILING-EDGE CONTROLS. William L. Scallion. September 1954. 52p. diagrs., photos., tabs. (NACA RM L54H03)

LIFT AND MOMENT COEFFICIENTS FOR AN OSCILLATING RECTANGULAR WING-AILERON CONFIGURATION IN SUPERSONIC FLOW. Julian H. Berman. July 1956. 46p. diagrs. (NACA TN 3644)

(1.2.2.4.1) Flap Type

FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF A WING-AILERON CONFIGURATION SIMULATING THE D-558-2 AIRPLANE. Carl A. Sandahl. July 21, 1948. 10p. diagrs., photo., tab. (NACA RM L8E28)

FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF THE ROLLING EFFECTIVENESS OF A 42.7° SWEPTBACK WING HAVING PARTIAL-SPAN AILERONS. Carl A. Sandahl. October 25, 1948. 13p. diagrs., photo., tab. (NACA RM L8E25)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS OF SPLIT FLAPS, ELEVONS, AND LEADING-EDGE DEVICES AT LOW SPEED. Edward J. Hopkins. May 19, 1949. 46p. diagrs., photos. (NACA RM A9C21)

CONTROL EFFECTIVENESS AND HINGE-MOMENT CHARACTERISTICS OF A TIP CONTROL SURFACE ON A LOW-ASPECT-RATIO POINTED WING AT A MACH NUMBER OF 1.9. D. William Conner and Ellery B. May, Jr. October 5, 1949. 28p. diagrs., photo. (NACA RM L9H26)

CONTROL EFFECTIVENESS LOAD AND HINGE-MOMENT CHARACTERISTICS OF A TIP CONTROL SURFACE ON A DELTA WING AT A MACH NUMBER OF 1.9. D. William Conner and Ellery B. May, Jr. October 7, 1949. 41p. diagrs., photo. (NACA RM L9H05)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°.- EFFECTIVENESS OF AN ELEVON AS A LONGITUDINAL CONTROL AND THE EFFECTS OF CAMBER AND TWIST ON THE MAXIMUM LIFT-DRAG RATIO AT SUPERSONIC SPEEDS. Robert N. Olson and Merrill H. Mead. May 8, 1950. 53p. diagrs., photos. (NACA RM A50A31a)

INVESTIGATION OF THE EFFECTS OF LEADING-EDGE CHORD-EXTENSIONS ON THE AERODYNAMIC AND CONTROL CHARACTERISTICS OF TWO SWEPTBACK WINGS AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Ellery B. May, Jr. January 16, 1951. 25p. diagrs., photo. (NACA RM L50L06a)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECTIVENESS OF AN INBOARD ELEVON AS A LONGITUDINAL- AND LATERAL-CONTROL DEVICE AT SUBSONIC AND SUPERSONIC SPEEDS. Frank A. Pfyl. December 1951. 38p. diagrs., photo., tabs. (NACA RM A51I18)

EFFECTS ON CONTROL EFFECTIVENESS OF SYSTEMATICALLY VARYING THE SIZE AND LOCATION OF TRAILING-EDGE FLAPS ON A 45° SWEPTBACK WING AT A MACH NUMBER OF 1.9. Carl R. Jacobsen. December 1951. 34p. diagrs., photo., tab. (NACA RM L51I26)

FREE-FLIGHT MEASUREMENTS OF SOME EFFECTS OF AILERON SPAN, CHORD, AND DEFLECTION AND OF WING FLEXIBILITY ON THE ROLLING EFFECTIVENESS OF AILERONS ON SWEPTBACK WINGS AT MACH NUMBERS BETWEEN 0.8 AND 1.6. Eugene D. Schult, H. Kurt Strass, and E. M. Fields. January 1952. 52p. diagrs., photos., tabs. (NACA RM L51K16)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SPOILERS OF LARGE PROJECTION ON AN NACA 65A006 WING WITH QUARTER-CHORD LINE SWEPT BACK 32.6°. Raymond D. Vogler. January 1952. 31p. diagrs., tab. (NACA RM L51L10)

RECENT DATA ON CONTROLS. David G. Stone. January 1952. 18p. diagrs. (NACA RM L52A10)

SOME EFFECTS OF AEROELASTICITY AT MACH NUMBERS FROM 0.7 TO 1.6 ON THE ROLLING EFFECTIVENESS OF THIN FLAT-PLATE DELTA WINGS HAVING 45° SWEPT LEADING EDGES AND FULL-SPAN CONSTANT-CHORD AILERONS. Edward T. Marley and Roland D. English. February 1952. 14p. diagrs., photo. (NACA RM L51L05)

AERODYNAMIC CHARACTERISTICS OF TWO 25-PERCENT-AREA TRAILING-EDGE FLAPS ON AN ASPECT RATIO 2 TRIANGULAR WING AT SUBSONIC AND SUPERSONIC SPEEDS. John W. Boyd. July 1952. 82p. diagrs., photos., tabs. (NACA RM A52D01c)

CONTROL HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF A 60° HALF-DELTA TIP CONTROL ON A 60° DELTA WING AT MACH NUMBERS OF 1.41 AND 1.96. Lawrence D. Guy. October 1952. 40p. diagrs., photo., tab. (NACA RM L52H13)

CONTROL HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF A HORN-BALANCED, FLAP-TYPE CONTROL ON A 55° SWEPTBACK TRIANGULAR WING OF ASPECT RATIO 3.5 AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Lawrence D. Guy. January 1953. 29p. diagrs., photo., tab. (NACA RM L52L15)

SUBSONIC STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A WING-BODY COMBINATION HAVING A POINTED WING OF ASPECT RATIO 2 WITH CONSTANT-PERCENT-CHORD TRAILING-EDGE ELEVONS. Donald W. Smith and Verlin D. Reed. May 1953. 143p. diagrs., photos., tab. (NACA RM A53C20)

AERODYNAMIC CHARACTERISTICS AT MACH NUMBER 4.04 OF A RECTANGULAR WING OF ASPECT RATIO 1.33 HAVING A 6-PERCENT-THICK CIRCULAR-ARC PROFILE AND A 30-PERCENT-CHORD FULL-SPAN TRAILING-EDGE FLAP. Robert W. Dunning and Edward F. Ulmann. May 1953. 26p. diagrs., tab (NACA RM L53D03)

WIND-TUNNEL INVESTIGATION OF A 45° SWEPTBACK WING HAVING A SYMMETRICAL ROOT AND A HIGHLY CAMBERED TIP, INCLUDING THE EFFECTS OF FENCES AND LATERAL CONTROLS. Joseph W. Cleary and Lee E. Boddy. November 1953. 52p. diagrs., photo. (NACA RM A53I21)

SOME EFFECTS OF LEADING-EDGE ROUGHNESS ON THE AILERON EFFECTIVENESS AND DRAG OF A THIN RECTANGULAR WING EMPLOYING A FULL-SPAN PLAIN AILERON AT MACH NUMBERS FROM 0.6 TO 1.5. Roland D. English. November 1953. 16p. diagrs., photos. (NACA RM L53I25)

RESULTS OF A ROCKET-MODEL INVESTIGATION OF CONTROL-SURFACE BUZZ AND FLUTTER ON A 4-PERCENT-THICK UNSWEPT WING AND ON 6-, 9-, AND 12-PERCENT-THICK SWEPT WINGS AT TRANSONIC SPEEDS. Allen B. Henning. November 1953. 33p. diagrs., photos., tabs. (NACA RM L53I29)

SUMMARY OF SOME ROCKET-MODEL INVESTIGATIONS OF EFFECTS OF WING ASPECT RATIO AND THICKNESS ON AILERON ROLLING EFFECTIVENESS INCLUDING SOME EFFECTS OF SPANWISE AILERON LOCATION FOR SWEPTBACK WINGS WITH ASPECT RATIO OF 8.0. H. Kurt Strass. February 1954. 26p. diagrs., photos., tab. (NACA RM L53L11)

EFFECT ON THE LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A 49° SWEPTBACK WING HAVING AN ASPECT RATIO OF 3.78 OF BLOWING AIR OVER THE TRAILING-EDGE FLAP AND AILERON. Edward F. Whittle, Jr., and Stanley Lipson. April 1954. 51p. diagrs., photo., tab. (NACA RM L54C05)

LATERAL CONTROL CHARACTERISTICS OF TWO STRUCTURALLY SIMILAR FLEXIBLE WINGS WITH 45° SWEEP: A SWEPTBACK WING AND A WING WITH M PLAN FORM. Rodger L. Naeseth, Delwin R. Croom, and John W. McKee. April 1954. 44p. diagrs., photo., tabs. (NACA RM L54C19)

FLIGHT INVESTIGATION OF AN AILERON AND A SPOILER ON A WING OF THE X-3 AIRPLANE PLAN FORM AT MACH NUMBERS FROM 0.5 TO 1.6. Roland D. English. June 1954. 16p. diagrs., photos. (NACA RM L54D26a)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF THE LIFT AND HINGE-MOMENT CHARACTERISTICS OF A FLAP WITH ATTACHED BALANCING TAB ON A 45° SWEPTBACK WING. Raymond D. Vogler. December 1954. 63p. diagrs. (NACA RM L54J28a)

FLIGHT MEASUREMENTS OF ELEVON HINGE MOMENTS ON THE XF-92A DELTA-WING AIRPLANE. Clinton T. Johnson and Albert E. Kuhl. January 1955. 26p. diagrs., photos., tab. (NACA RM H54J25a)

FLIGHT MEASUREMENTS OF WING LOADS ON THE CONVAIR XF-92A DELTA-WING AIRPLANE. Albert E. Kuhl and Clinton T. Johnson. May 1955. 37p. diagrs., photos., tab. (NACA RM H55D12)

SIMPLIFIED PROCEDURES FOR ESTIMATING FLAP-CONTROL LOADS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1955. 14p. diagrs. (NACA RM L55E12)

AN INVESTIGATION OF LOADS ON AILERONS AT TRANSONIC SPEEDS. Jack F. Runckel and W. H. Gray. May 1955. 8p. diagrs. (NACA RM L55E13)

GROUND EFFECTS ON THE LONGITUDINAL CHARACTERISTICS OF TWO MODELS WITH WINGS HAVING LOW ASPECT RATIO AND POINTED TIPS. Donald A. Buell and Bruce E. Tinling. July 1955. 48p. diagrs., photos., tabs. (NACA RM A55E04)

SOME FACTORS AFFECTING THE VARIATION OF PITCHING MOMENT WITH SIDESLIP OF AIRCRAFT CONFIGURATIONS. Edward C. Polhamus. July 1955. 29p. diagrs. (NACA RM L55E20b)

AERODYNAMIC CHARACTERISTICS AND PRESSURE DISTRIBUTIONS OF A 6-PERCENT-THICK 49° SWEPTBACK WING WITH BLOWING OVER HALF-SPAN AND FULL-SPAN FLAPS. Edward F. Whittle, Jr., and H. Clyde McLemore. September 1955. 71p. diagrs., photo., tabs. (NACA RM L55F02)

WIND-TUNNEL INVESTIGATION OF JET-AUGMENTED FLAPS ON A RECTANGULAR WING TO HIGH MOMENTUM COEFFICIENTS. Vernard E. Lockwood, Thomas R. Turner, and John M. Riebe. December 1956. 51p. diagrs., tab. (NACA TN 3865)

WIND-TUNNEL INVESTIGATION OF AN EXTERNAL-FLOW JET-AUGMENTED SLOTTED FLAP SUITABLE FOR APPLICATION TO AIRPLANES WITH POD-MOUNTED JET ENGINES. John P. Campbell and Joseph L. Johnson, Jr. December 1956. 47p. diagrs., tab. (NACA TN 3898)

A METHOD FOR PREDICTING LIFT INCREMENTS DUE TO FLAP DEFLECTION AT LOW ANGLES OF ATTACK IN INCOMPRESSIBLE FLOW. John G. Lowry and Edward C. Polhamus. January 1957. 29p. diagrs. (NACA TN 3911)

(1.2.2.4.2) Spoilers

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°.- EFFECTIVENESS OF AN ELEVON AS A LONGITUDINAL CONTROL AND THE EFFECTS OF CAMBER AND TWIST ON THE MAXIMUM LIFT-DRAG RATIO AT SUPERSONIC SPEEDS. Robert N. Olson and Merrill H. Mead. May 8, 1950. 53p. diagrs., photos. (NACA RM A50A31a)

INVESTIGATION OF THE EFFECTS OF LEADING-EDGE CHORD-EXTENSIONS ON THE AERODYNAMIC AND CONTROL CHARACTERISTICS OF TWO SWEPTBACK WINGS AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Ellery B. May, Jr. January 16, 1951. 25p. diagrs., photo. (NACA RM L50L06a)

EFFECTS OF SPOILER ON AIRFOIL PRESSURE DISTRIBUTION AND EFFECTS OF SIZE AND LOCATION OF SPOILERS ON THE AERODYNAMIC CHARACTERISTICS OF A TAPERED UNSWEPT WING OF ASPECT RATIO 2.5 AT A MACH NUMBER OF 1.90. D. William Conner and Meade H. Mitchell, Jr. January 24, 1951. 33p. diagrs., photo. (NACA RM L50L20)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SPOILERS OF LARGE PROJECTION ON AN NACA 65A006 WING WITH QUARTER-CHORD LINE SWEPT BACK 32.6°. Raymond D. Vogler. January 1952. 31p. diagrs., tab. (NACA RM L51L10)

RECENT DATA ON CONTROLS. David G. Stone. January 1952. 18p. diagrs. (NACA RM L52A10)

AN INVESTIGATION AT SUBSONIC SPEEDS OF THE ROLLING EFFECTIVENESS OF A SMALL PERFORATED SPOILER ON A WING HAVING 45° OF SWEEPBACK. Angelo Bandettini. September 1952. 37p. diagrs., photos. (NACA RM A52G02)

SOME EFFECTS OF SPOILER HEIGHT, WING FLEXIBILITY, AND WING THICKNESS ON ROLLING EFFECTIVENESS AND DRAG OF UNSWEPT WINGS AT MACH NUMBERS BETWEEN 0.4 AND 1.7. E. M. Fields. October 1952. 20p. diagrs., photo. (NACA RM L52H18)

CONTROL CHARACTERISTICS OF TRAILING-EDGE SPOILERS ON UNTAPERED BLUNT TRAILING-EDGE WINGS OF ASPECT RATIO 2.7 WITH 0° AND 45° SWEEPBACK AT MACH NUMBERS OF 1.41 AND 1.96. Carl R. Jacobsen. December 1952. 35p. diagrs., photo. (NACA RM L52J28)

WIND-TUNNEL INVESTIGATION OF A 45° SWEPTBACK WING HAVING A SYMMETRICAL ROOT AND A HIGHLY CAMBERED TIP, INCLUDING THE EFFECTS OF FENCES AND LATERAL CONTROLS. Joseph W. Cleary and Lee E. Boddy. November 1953. 52p. diagrs., photo. (NACA RM A53I21)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECT OF SPOILER PROFILE ON THE LATERAL CONTROL CHARACTERISTICS OF A WING-FUSELAGE COMBINATION WITH QUARTER-CHORD LINE SWEPT BACK 32.6° AND NACA 65A006 AIRFOIL SECTION. Harold S. Johnson. November 1953. 15p. diagrs. (NACA RM L53J05a)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A SPOILER-SLOT-DEFLECTOR COMBINATION ON AN UNSWEPT NACA 65A006 WING. Raymond D. Vogler. December 1953. 27p. diagrs., 3 tabs. (NACA RM L53J21)

INVESTIGATION AT TRANSONIC SPEEDS OF THE LATERAL-CONTROL AND HINGE-MOMENT CHARACTERISTICS OF A FLAP-TYPE SPOILER AILERON ON A 60° DELTA WING. Harleth G. Wiley and Robert T. Taylor. January 1954. 22p. diagrs. (NACA RM L53J05)

THE TWISTING EFFECT AT TRANSONIC SPEEDS OF SPOILER AILERONS ON A 45° SWEPTBACK, ASPECT-RATIO-4, TAPERED WING. Alexander D. Hammond and Jean C. Graven, Jr. January 1954. 21p. diagrs., photo. (NACA RM L53K03a)

FLIGHT INVESTIGATION OF THE ROLLING EFFECTIVENESS OF FINGERED SEMAPHORE SPOILERS ON A TAPERED 45° SWEPTBACK WING BETWEEN MACH NUMBERS 0.6 AND 1.3. James D. Church. January 1954. 27p. diagrs., photos. (NACA RM L53K20)

FREE-FLIGHT MEASUREMENTS OF THE ROLLING EFFECTIVENESS AND DRAG OF TRAILING-EDGE SPOILERS ON A TAPERED SWEPTBACK WING AT MACH NUMBERS BETWEEN 0.6 AND 1.4. Eugene D. Schult and E. M. Fields. February 1954. 14p. diagrs., photos. (NACA RM L53L14a)

LATERAL CONTROL CHARACTERISTICS OF TWO STRUCTURALLY SIMILAR FLEXIBLE WINGS WITH 45° SWEEP: A SWEPTBACK WING AND A WING WITH M PLAN FORM. Rodger L. Naeseth, Delwin R. Croom, and John W. McKee. April 1954. 44p. diagrs., photo., tabs. (NACA RM L54C19)

A WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE LATERAL CONTROL CHARACTERISTICS OF VARIOUS PLAIN SPOILER CONFIGURATIONS ON A 3-PERCENT-THICK 60° DELTA WING. Harleth G. Wiley. May 1954. 45p. diagrs., tabs. (NACA RM L54D01)

FLIGHT INVESTIGATION OF AN AILERON AND A SPOILER ON A WING OF THE X-3 AIRPLANE PLAN FORM AT MACH NUMBERS FROM 0.5 TO 1.6. Roland D. English. June 1954. 16p. diagrs., photos. (NACA RM L54D26a)

PRESSURE DISTRIBUTIONS ON PLUG- AND SEMAPHORE-TYPE SPOILER AILERONS ON A 35° SWEPTBACK WING OF ASPECT RATIO 4, TAPER RATIO 0.6, AND NACA 65A006 AIRFOIL SECTION AT HIGH SUBSONIC SPEEDS. Alexander D. Hammond and William C. Hayes, Jr. August 1954. 55p. diagrs., tabs. (NACA RM L54F08)

EFFECT OF A WING LEADING-EDGE FLAP AND CHORD-EXTENSION ON THE HIGH SUBSONIC CONTROL CHARACTERISTICS OF A SPOILER-SLOT-DEFLECTOR CONTROL LOCATED AT TWO SPANWISE POSITIONS. Robert F. Thompson and Robert T. Taylor. November 1954. 73p. diagrs., photo., tabs. (NACA RM L54I09)

TESTS IN THE AMES 40- BY 80-FOOT WIND TUNNEL OF THE AERODYNAMIC CHARACTERISTICS OF AIRPLANE MODELS WITH PLAIN SPOILER AILERONS. Ralph W. Franks. December 1954. 47p. diagrs., photo., tabs. (NACA RM A54H26)

THE APPLICATION OF A SIMPLIFIED LIFTING-SURFACE THEORY TO THE PREDICTION OF THE ROLLING EFFECTIVENESS OF PLAIN SPOILER AILERONS AT SUBSONIC SPEEDS. Ralph W. Franks. December 1954. 29p. diagrs., tab. (NACA RM A54H26a)

INVESTIGATION AT TRANSONIC SPEEDS OF DEFLECTORS AND SPOILERS AS GUST ALLEVIATORS ON A 35° SWEPT WING. TRANSONIC-BUMP METHOD. Delwin R. Croom and Jarrett K. Huffman. June 1957. 19p. diagrs. (NACA TN 4006)

LOADS IMPLICATIONS OF GUST-ALLEVIATION SYSTEMS. William H. Phillips. June 1957. 11p. diagrs., tab. (NACA TN 4056)

INVESTIGATION AT LOW SPEEDS OF DEFLECTORS AND SPOILERS AS GUST ALLEVIATORS ON A MODEL OF THE BELL X-5 AIRPLANE WITH 35° SWEPT WINGS AND ON A HIGH-ASPECT-RATIO 35° SWEPT-WING–FUSELAGE MODEL. Delwin R. Croom and Jarrett K. Huffman. June 1957. 37p. diagrs., tab. (NACA TN 4057)

(1.2.2.4.3) All-Movable

THE ROLLING EFFECTIVENESS OF WING-TIP AILERONS AS DETERMINED BY ROCKET-POWERED TEST VEHICLES AND LINEAR SUPERSONIC THEORY. Carl A. Sandahl, H. Kurt Strass, and Robert O. Piland. Appendix: DETERMINATION OF THE THEORETICAL ROLLING EFFECTIVENESS OF WING-TIP AILERONS. Robert O. Piland. August 29, 1950. 32p. diagrs., photo., tab. (NACA RM L50F21)

INFLUENCE OF FUSELAGE AND CANARD-TYPE CONTROL SURFACE ON THE FLOW FIELD ADJACENT TO A REARWARD FUSELAGE STATION AT A MACH NUMBER OF 2.0 - DATA PRESENTATION. Evan A. Fradenburgh, Leonard J. Obery, and John F. Mello. January 1952. 25p. diagrs., photos. (NACA RM E51K05)

RECENT DATA ON CONTROLS. David G. Stone. January 1952. 18p. diagrs. (NACA RM L52A10)

WIND-TUNNEL INVESTIGATION OF A RAM-JET CANARD MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.60. M. Leroy Spearman and Ross B. Robinson. August 1952. 63p. diagrs., photo., tabs. (NACA RM L52E15)

AERODYNAMIC CHARACTERISTICS OF A CANARD-BALANCED, FREE-FLOATING, ALL-MOVABLE STABILIZER AS OBTAINED FROM ROCKET-POWERED-MODEL FLIGHT TESTS AND LOW-SPEED WIND-TUNNEL TESTS. William N. Gardner. December 1953. 65p. diagrs., photos., tabs. (NACA RM L53I28a)

LATERAL CONTROL CHARACTERISTICS OF TWO STRUCTURALLY SIMILAR FLEXIBLE WINGS WITH 45° SWEEP: A SWEPTBACK WING AND A WING WITH M PLAN FORM. Rodger L. Naeseth, Delwin R. Croom, and John W. McKee. April 1954. 44p. diagrs., photo., tabs. (NACA RM L54C19)

FLIGHT INVESTIGATION TO DETERMINE LIFT AND DRAG CHARACTERISTICS OF A CANARD RAM-JET MISSILE CONFIGURATION IN THE MACH NUMBER RANGE OF 0.8 TO 2.0. Abraham A. Gammal and Thomas L. Kennedy. June 1954. 20p. diagrs., photos. (NACA RM L54D28)

A THEORETICAL STUDY OF THE LIFTING EFFICIENCY AT SUPERSONIC SPEEDS OF WINGS UTILIZING INDIRECT LIFT INDUCED BY VERTICAL SURFACES. Vernon J. Rossow. March 1956. ii, 59p. diagrs. (NACA RM A55L08)

(1.2.2.5) REYNOLDS NUMBER EFFECTS

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS AT A MACH NUMBER OF 1.53 INCLUDING EFFECT OF SMALL VARIATIONS OF SWEEP. Robert T. Madden. January 26, 1949. 71p. diagrs., photos., tabs. (NACA RM A8J04)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - INVESTIGATION AT A MACH NUMBER OF 1.53 TO DETERMINE THE EFFECTS OF CAMBERING AND TWISTING THE WING FOR UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. Robert T. Madden. May 6, 1949. 33p. diagrs., photo., tabs. (NACA RM A9C07)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS OF SPLIT FLAPS, ELEVONS, AND LEADING-EDGE DEVICES AT LOW SPEED. Edward J. Hopkins. May 19, 1949. 46p. diagrs., photos. (NACA RM A9C21)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS THROUGHOUT THE SUBSONIC SPEED RANGE WITH THE WING CAMBERED AND TWISTED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. J. Lloyd Jones and Fred A. Demele. August 15, 1949. 41p. diagrs., photos., tab. (NACA RM A9D25)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECT OF SIDESLIP ON AERODYNAMIC CHARACTERISTICS AT A MACH NUMBER OF 1.4 WITH THE WING TWISTED AND CAMBERED. Henry C. Lessing. September 29, 1950. 28p. diagrs., photos. (NACA RM A50F09)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECT OF REYNOLDS NUMBER AT SUPERSONIC MACH NUMBERS ON THE LONGITUDINAL CHARACTERISTICS OF A WING TWISTED AND CAMBERED FOR UNIFORM LOAD. John C. Heitmeyer. October 9, 1950. 36p. diagrs., photo. (NACA RM A50G10)

A COMPARISON OF THE EXPERIMENTAL AND THEORETICAL LOADING OVER TRIANGULAR WINGS AT SUPERSONIC SPEEDS. John W. Boyd and E. Ray Phelps. January 3, 1951. 42p. diagrs., photos., tabs. (NACA RM A50J17)

THE EFFECTS OF BOUNDARY-LAYER CONTROL ON THE LONGITUDINAL CHARACTERISTICS OF A SWEPT-BACK WING USING SUCTION THROUGH STREAMWISE SLOTS IN THE OUTBOARD PORTION OF THE WING. Gerald M. McCormack and William H. Tolhurst, Jr. January 5, 1951. 34p. diagrs., photo., tabs. (NACA RM A50K06)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TAPERED WING OF ASPECT RATIO 3.1 WITH 3-PERCENT-THICK, BICONVEX SECTION. David E. Reese and E. Ray Phelps. January 30, 1951. 26p. diagrs., photo. (NACA RM A50K28)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0008-63 SECTION. Donald W. Smith and John C. Heitmeyer. February 1, 1951. 22p. diagrs., photo. (NACA RM A50K20)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 SECTION. Donald W. Smith and John C. Heitmeyer. February 1, 1951. 23p. diagrs., photo. (NACA RM A50K21)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH NACA 0005-63 SECTION. John C. Heitmeyer and Jack D. Stephenson. February 2, 1951. 21p. diagrs., photo. (NACA RM A50K24)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0003-63 SECTION. John C. Heitmeyer and Willard G. Smith. February 2, 1951. 22p. diagrs., photo. (NACA RM A50K24a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TRIANGULAR WING OF ASPECT RATIO 4 WITH NACA 0005-63 THICKNESS DISTRIBUTION, CAMBERED AND TWISTED FOR TRAPEZOIDAL SPAN LOAD DISTRIBUTION. E. Ray Phelps and Willard G. Smith. February 2, 1951. 23p. diagrs., photo., tab. (NACA RM A50K24b)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 THICKNESS DISTRIBUTION, CAMBERED AND TWISTED FOR A TRAPEZOIDAL SPAN LOAD DISTRIBUTION. Willard G. Smith and E. Ray Phelps. February 5, 1951. 21p. diagrs., photo., tab. (NACA RM A50K27a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH 3-PERCENT-THICK, BICONVEX SECTION. John C. Heitmeyer. June 8, 1951. 26p. diagrs., photo. (NACA RM A51D30)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH 3-PERCENT-THICK ROUNDED NOSE SECTION. John C. Heitmeyer and Ronald C. Hightower. August 1951. 17p. diagrs. (NACA RM A51F21)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 3 WITH NACA 0003-63 SECTION. John C. Heitmeyer. September 1951. 20p. diagrs. (NACA RM A51H02)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE 45° SWEPT-BACK WING OF ASPECT RATIO 3, TAPER RATIO 0.4 WITH 3-PERCENT-THICK, BICONVEX SECTION. John C. Heitmeyer. September 1951. 20p. diagrs. (NACA RM A51H10)

EFFECTS OF REYNOLDS NUMBER ON THE AERODYNAMIC CHARACTERISTICS OF A DELTA WING AT MACH NUMBER OF 2.41. John E. Hatch, Jr., and L. Keith Hargrave. October 1951. 36p. diagrs., photos., tab. (NACA RM L51H06)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - AN INVESTIGATION AT LARGE REYNOLDS NUMBERS OF THE LOW-SPEED CHARACTERISTICS OF SEVERAL WING-BODY COMBINATIONS. Donald W. Smith, Harry H. Shibata, and Ralph Selan. February 1952. 56p. diagrs., photos., tab. (NACA RM A51K28)

A COMPARISON OF THE CHORDWISE PRESSURE DISTRIBUTION AND SPANWISE DISTRIBUTION OF LOADING AT SUBSONIC SPEEDS ON TWO TRIANGULAR WINGS OF ASPECT RATIO 2 HAVING NACA 0005 AND 0008 SECTIONS. Donald W. Smith and Verlin D. Reed. May 1952. 142p. diagrs., photo., tabs. (NACA RM A51L21)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TAPERED WING OF ASPECT RATIO 3.1 WITH 3-PERCENT-THICK ROUNDED-NOSE SECTION. John C. Heitmeyer. July 1952. 25p. diagrs., tabs. (NACA RM A52D23)

EFFECTS OF THREE TYPES OF BLUNT TRAILING EDGES ON THE AERODYNAMIC CHARACTERISTICS OF A PLANE TAPERED WING OF ASPECT RATIO 3.1, WITH A 3-PERCENT-THICK BICONVEX SECTION. Duane W. Dugan. July 1952. 34p. diagrs. (NACA RM A52E01)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

AN INVESTIGATION AT SUBSONIC SPEEDS OF THE ROLLING EFFECTIVENESS OF A SMALL PERFORATED SPOILER ON A WING HAVING 45° OF SWEEPBACK. Angelo Bandettini. September 1952. 37p. diagrs., photos. (NACA RM A52G02)

INVESTIGATION AT A MACH NUMBER OF 1.2 OF TWO 45° SWEPTBACK WINGS UTILIZING NACA 2-006 AND NACA 65A006 AIRFOIL SECTIONS. Homer B. Wilson, Jr. September 1952. 20p. diagrs., photo., tab. (NACA RM L52G17)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - COMPARISON OF THREE WINGS OF ASPECT RATIO 2 OF RECTANGULAR, SWEPTBACK, AND TRIANGULAR PLAN FORM, INCLUDING EFFECTS OF THICKNESS DISTRIBUTION. Ronald C. Hightower. February 1953. 30p. diagrs., tabs. (NACA RM A52L02)

SUBSONIC STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A WING-BODY COMBINATION HAVING A POINTED WING OF ASPECT RATIO 2 WITH CONSTANT-PERCENT-CHORD TRAILING-EDGE ELEVONS. Donald W. Smith and Verlin D. Reed. May 1953. 143p. diagrs., photos., tab. (NACA RM A53C20)

STATIC LATERAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 47.7° SWEPTBACK WING OF ASPECT RATIO 6 AND THE CONTRIBUTION OF VARIOUS MODEL COMPONENTS AT A REYNOLDS NUMBER OF 4.45×10^6. Roland F. Griner. September 1953. 83p. diagrs., photos., tabs. (NACA RM L53G09)

AERODYNAMIC CHARACTERISTICS OF A 68.4° DELTA WING AT MACH NUMBERS OF 1.6 AND 1.9 OVER A WIDE REYNOLDS NUMBER RANGE. John E. Hatch, Jr., and James J. Gallagher. November 1953. 44p. diagrs., photos., tabs. (NACA RM L53I08)

THE EFFECTS OF HORIZONTAL-TAIL LOCATION AND SIZE ON THE SUBSONIC LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Bruce E. Tinling and Armando E. Lopez. March 1954. 85p. diagrs., photo., tabs. (NACA RM A53L15)

A LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS OF TWO TYPES OF CONTROLS AND BALANCING TABS ON A LARGE-SCALE THIN DELTA-WING—FUSELAGE MODEL. Marvin P. Fink and Bennie W. Cocke. March 1954. 69p. diagrs., photo., tabs. (NACA RM L54B03)

A COMPARISON OF THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT MACH NUMBERS UP TO 0.94 OF SWEPTBACK WINGS HAVING NACA 4-DIGIT OR NACA 64A THICKNESS DISTRIBUTIONS. Fred B. Sutton and Jerald K. Dickson. August 1954. 67p. diagrs., tab. (NACA RM A54F18)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF LEADING-EDGE POROUS SUCTION ON A 4-PERCENT-THICK 60° DELTA WING. E. Carson Yates, Jr. March 1955. 73p. diagrs., photo., tabs. (NACA RM L54L21)

INVESTIGATION OF THE EFFECTS OF MODEL SCALE AND STREAM REYNOLDS NUMBER ON THE AERODYNAMIC CHARACTERISTICS OF TWO RECTANGULAR WINGS AT SUPERSONIC SPEEDS IN THE LANGLEY 9-INCH SUPERSONIC TUNNEL. Donald E. Coletti. June 1955. 32p. diagrs. (NACA RM L55D29)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY OF TWO 45° SWEPTBACK WINGS AS INFLUENCED BY REYNOLDS NUMBERS UP TO 8.20×10^6 AND MACH NUMBERS UP TO 0.303. Gerald V. Foster and William C. Schneider. July 1955. 65p. diagrs. (NACA RM L55F06)

AN EXPERIMENTAL HYDRODYNAMIC INVESTIGATION OF THE INCEPTION OF VORTEX VENTILATION. John A. Ramsen. April 1957. 31p. diagrs., photos. (NACA TN 3903)

HYDRODYNAMIC CHARACTERISTICS OVER A RANGE OF SPEEDS UP TO 80 FEET PER SECOND OF A RECTANGULAR MODIFIED FLAT PLATE HAVING AN ASPECT RATIO OF 0.25 AND OPERATING AT SEVERAL DEPTHS OF SUBMERSION. Victor L. Vaughan, Jr., and John A. Ramsen. April 1957. 23p. diagrs. (NACA TN 3908)

(1. 2. 2. 6) MACH NUMBER EFFECTS

FLIGHT-TEST EVALUATION OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF 0.5-SCALE MODELS OF THE LARK PILOTLESS-AIRCRAFT CONFIGURATION. David G. Stone. February 6, 1948. 60p. diagrs., photos., tabs. (NACA RM L7I26)

FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF A WING-AILERON CONFIGURATION SIMULATING THE D-558-2 AIRPLANE. Carl A. Sandahl. July 21, 1948. 10p. diagrs., photo., tab. (NACA RM L8E28)

FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF THE ROLLING EFFECTIVENESS OF A 42.7° SWEPTBACK WING HAVING PARTIAL-SPAN AILERONS. Carl A. Sandahl. October 25, 1948. 13p. diagrs., photo., tab. (NACA RM L8E25)

FLIGHT INVESTIGATION OF FLUTTER MODELS WITH 1/10-SCALE DOUGLAS D-558-2 WING PANELS. Jerome M. Teitelbaum. February 16, 1949. 15p. diagrs., photos., tab. (NACA RM L9A06)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS FOR SYMMETRICAL WING SECTIONS AT HIGH SUBSONIC AND MODERATE SUPERSONIC MACH NUMBERS. Newton A. Mas. July 7, 1949. 28p. diagrs., photos. (NACA RM A9E09)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS THROUGHOUT THE SUBSONIC SPEED RANGE WITH THE WING CAMBERED AND TWISTED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. J. Lloyd Jones and Fred A. Demele. August 15, 1949. 41p. diagrs., photos., tab. (NACA RM A9D25)

A COMPARISON OF THEORETICAL AND EXPERIMENTAL LOADING ON A 63° SWEPT-BACK WING AT SUPERSONIC SPEEDS. Victor I. Stevens and John W. Boyd. September 14, 1949. 21p. diagrs., photos. (NACA RM A9C16)

COMPARATIVE TESTS OF THE ROLLING EFFECTIVENESS OF CONSTANT-CHORD, FULL-DELTA, AND HALF-DELTA AILERONS ON DELTA WINGS AT TRANSONIC AND SUPERSONIC SPEEDS. Carl A. Sandahl and H. Kurt Strass. December 12, 1949. 26p. diagrs., photos., tab. (NACA RM L9J26)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS AT SUPERSONIC SPEEDS OF A MODEL WITH THE WING TWISTED AND CAMBERED FOR UNIFORM LOAD. Charles F. Hall and John C. Heitmeyer. January 9, 1950. 35p. diagrs., photo. (NACA RM A9J24)

PRELIMINARY RESULTS FROM A FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION WITH A THIN STRAIGHT WING OF ASPECT RATIO 3. Clarence L. Gillis, Robert F. Peck, and A. James Vitale. February 14, 1950. 53p. diagrs., photos., tabs. (NACA RM L9K25a)

SOME EFFECTS OF CHORDWISE FENCES ON THE AERODYNAMIC CHARACTERISTICS OF FOUR MODERATELY SWEPTBACK WINGS IN THE LOW-LIFT RANGE AT TRANSONIC MACH NUMBERS AND AT MACH NUMBER 1.9. Lawrence D. Guy. July 21, 1950. 22p. diagrs., photo., tab. (NACA RM L50E16)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. MEASUREMENTS OF THE BUFFET BOUNDARY AND PEAK AIRPLANE NORMAL-FORCE COEFFICIENTS AT MACH NUMBERS UP TO 0.90. John P. Mayer and George M. Valentine. August 28, 1950. 31p. diagrs., photos., tab. (NACA RM L50E31)

TABULATED PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS MEASURED ON THE WING OF THE BELL X-1 AIRPLANE IN LEVEL FLIGHT AT MACH NUMBERS FROM 0.79 TO 1.00 AND IN A PULL-UP AT A MACH NUMBER OF 0.96. H. Arthur Carner and Mary M. Payne. September 18, 1950. 43p. diagrs., photo., tabs. (NACA RM L50H25)

A SMALL-SCALE INVESTIGATION OF "M" AND "W" WINGS AT TRANSONIC SPEEDS. George S. Campbell and William D. Morrison, Jr. October 2, 1950. 30p. diagrs., photo., tab. (NACA RM L50H25a)

BUFFETING INFORMATION OBTAINED FROM ROCKET-PROPELLED AIRPLANE MODELS HAVING THIN UNSWEPT WINGS. Clarence L. Gillis. October 18, 1950. 15p. diagrs., photos. (NACA RM L50H22a)

A COMPARISON OF THE EXPERIMENTAL AND THEORETICAL LOADING OVER TRIANGULAR WINGS AT SUPERSONIC SPEEDS. John W. Boyd and E. Ray Phelps. January 3, 1951. 42p. diagrs., photos., tabs. (NACA RM A50J17)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TAPERED WING OF ASPECT RATIO 3.1 WITH 3-PERCENT-THICK, BICONVEX SECTION. David E. Reese and E. Ray Phelps. January 30, 1951. 26p. diagrs., photo. (NACA RM A50K28)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0008-63 SECTION. Donald W. Smith and John C. Heitmeyer. February 1, 1951. 22p. diagrs., photo. (NACA RM A50K20)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 SECTION. Donald W. Smith and John C. Heitmeyer. February 1, 1951. 23p. diagrs., photo. (NACA RM A50K21)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH NACA 0005-63 SECTION. John C. Heitmeyer and Jack D. Stephenson. February 2, 1951. 21p. diagrs., photo. (NACA RM A50K24)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0003-63 SECTION. John C. Heitmeyer and Willard G. Smith. February 2, 1951. 22p. diagrs., photo. (NACA RM A50K24a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TRIANGULAR WING OF ASPECT RATIO 4 WITH NACA 0005-63 THICKNESS DISTRIBUTION, CAMBERED AND TWISTED FOR TRAPEZOIDAL SPAN LOAD DISTRIBUTION. E. Ray Phelps and Willard G. Smith. February 2, 1951. 23p. diagrs., photo., tab. (NACA RM A50K24b)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 THICKNESS DISTRIBUTION, CAMBERED AND TWISTED FOR A TRAPEZOIDAL SPAN LOAD DISTRIBUTION. Willard G. Smith and E. Ray Phelps. February 5, 1951. 21p. diagrs., photo., tab. (NACA RM A50K27a)

AERODYNAMIC CHARACTERISTICS OF WINGS DESIGNED FOR STRUCTURAL IMPROVEMENTS. Joseph Weil and Edward C. Polhamus. May 28, 1951. 12p. diagrs. (NACA RM L51E10a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH 3-PERCENT-THICK, BICONVEX SECTION. John C. Heitmeyer. June 8, 1951. 26p. diagrs., photo. (NACA RM A51D30)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH 3-PERCENT-THICK ROUNDED NOSE SECTION. John C. Heitmeyer and Ronald C. Hightower. August 1951. 17p. diagrs. (NACA RM A51F21)

INVESTIGATION OF MINIMUM DRAG AND MAXIMUM LIFT-DRAG RATIOS OF SEVERAL WING-BODY COMBINATIONS INCLUDING A CAMBERED TRIANGULAR WING AT LOW REYNOLDS NUMBERS AND AT SUPERSONIC SPEEDS. Clinton E. Brown and L. K. Hargrave. August 1951. 62p. diagrs., photos., tabs. (NACA RM L51E11)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 3 WITH NACA 0003-63 SECTION. John C. Heitmeyer. September 1951. 20p. diagrs. (NACA RM A51H02)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE 45° SWEPT-BACK WING OF ASPECT RATIO 3, TAPER RATIO 0.4 WITH 3-PERCENT-THICK, BICONVEX SECTION. John C. Heitmeyer. September 1951. 20p. diagrs. (NACA RM A51H10)

(1) AERODYNAMICS

TABULATED PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS MEASURED ON THE WING OF THE BELL X-1 AIRPLANE IN AN UNACCELERATED LOW-SPEED STALL, IN PUSH-OVERS AT MACH NUMBERS OF 0.83 AND 0.99, AND IN A PULL-UP AT A MACH NUMBER OF 1.16. Ronald J. Knapp. September 1951. 53p. diagrs., photo., tabs. (NACA RM L51F25)

DAMPING IN ROLL OF ROCKET-POWERED TEST VEHICLES HAVING SWEPT, TAPERED WINGS OF LOW ASPECT RATIO. E. Claude Sanders, Jr., and James L. Edmondson. October 1951. 25p. diagrs., photos., tab. (NACA RM L51G06)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A LEADING-EDGE SLAT ON A MODIFIED-DOUBLE-WEDGE WING. Richard G. MacLeod. December 1951. 12p. diagrs. (NACA RM L51J22a)

FREE-FLIGHT MEASUREMENTS OF SOME EFFECTS OF AILERON SPAN, CHORD, AND DEFLECTION AND OF WING FLEXIBILITY ON THE ROLLING EFFECTIVENESS OF AILERONS ON SWEPTBACK WINGS AT MACH NUMBERS BETWEEN 0.8 AND 1.6. Eugene D. Schult, H. Kurt Strass, and E. M. Fields. January 1952. 52p. diagrs., photos., tabs. (NACA RM L51K16)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SPOILERS OF LARGE PROJECTION ON AN NACA 65A006 WING WITH QUARTER-CHORD LINE SWEPT BACK 32.6°. Raymond D. Vogler. January 1952. 31p. diagrs., tab. (NACA RM L51L10)

RECENT DATA ON CONTROLS. David G. Stone. January 1952. 18p. diagrs. (NACA RM L52A10)

CHARACTERISTICS OF SWEPT WINGS AT HIGH SPEEDS. Charles J. Donlan and Joseph Weil. January 1952. 19p. diagrs. (NACA RM L52A15)

SOME EFFECTS OF AEROELASTICITY AT MACH NUMBERS FROM 0.7 TO 1.6 ON THE ROLLING EFFECTIVENESS OF THIN FLAT-PLATE DELTA WINGS HAVING 45° SWEPT LEADING EDGES AND FULL-SPAN CONSTANT-CHORD AILERONS. Edward T. Marley and Roland D. English. February 1952. 14p. diagrs., photo. (NACA RM L51L05)

A COMPARISON OF THE CHORDWISE PRESSURE DISTRIBUTION AND SPANWISE DISTRIBUTION OF LOADING AT SUBSONIC SPEEDS ON TWO TRIANGULAR WINGS OF ASPECT RATIO 2 HAVING NACA 0005 AND 0008 SECTIONS. Donald W. Smith and Verlin D. Reed. May 1952. 142p. diagrs., photo., tabs. (NACA RM A51L21)

AERODYNAMIC CHARACTERISTICS OF TWO PLANE, UNSWEPT TAPERED WINGS OF ASPECT RATIO 3 AND 3-PERCENT THICKNESS FROM TESTS ON TRANSONIC BUMP. Horace F. Emerson and Bernard M. Gale. May 1952. 23p. diagrs., photo. (NACA RM A52C07)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.70 TO 1.37 OF ROCKET-PROPELLED MODELS HAVING A MODIFIED TRIANGULAR WING. Rowe Chapman, Jr., and John D. Morrow. May 1952. 35p. diagrs., photos., tab. (NACA RM L52A31)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 3 WITH AIR-TO-AIR MISSILE MODELS MOUNTED EXTERNALLY. Donald Conrard. June 1952. 28p. diagrs., photo. (NACA RM A52C10a)

AERODYNAMIC CHARACTERISTICS OF TWO 25-PERCENT-AREA TRAILING-EDGE FLAPS ON AN ASPECT RATIO 2 TRIANGULAR WING AT SUBSONIC AND SUPERSONIC SPEEDS. John W. Boyd. July 1952. 82p. diagrs., photos., tabs. (NACA RM A52D01c)

TRANSONIC AERODYNAMIC CHARACTERISTICS OF THREE THIN TRIANGULAR WINGS AND A TRAPEZOIDAL WING, ALL OF LOW ASPECT RATIO. Horace F. Emerson and Bernard M. Gale. July 1952. 35p. diagrs., photos. (NACA RM A52D21)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TAPERED WING OF ASPECT RATIO 3.1 WITH 3-PERCENT-THICK ROUNDED-NOSE SECTION. John C. Heitmeyer. July 1952. 25p. diagrs., tabs. (NACA RM A52D23)

EFFECTS OF THREE TYPES OF BLUNT TRAILING EDGES ON THE AERODYNAMIC CHARACTERISTICS OF A PLANE TAPERED WING OF ASPECT RATIO 3.1, WITH A 3-PERCENT-THICK BICONVEX SECTION. Duane W. Dugan. July 1952. 34p. diagrs. (NACA RM A52E01)

TRANSONIC AERODYNAMIC CHARACTERISTICS OF THREE W-PLAN-FORM WINGS HAVING ASPECT RATIO 8, TAPER RATIO 0.45, AND NACA 63A-SERIES AIRFOIL SECTIONS. William D. Morrison, Jr. July 1952. 30p. diagrs., photo. (NACA RM L52E14a)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

AN INVESTIGATION AT SUBSONIC SPEEDS OF THE ROLLING EFFECTIVENESS OF A SMALL PERFORATED SPOILER ON A WING HAVING 45° OF SWEEPBACK. Angelo Bandettini. September 1952. 37p. diagrs., photos. (NACA RM A52G02)

AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION AND THE FUSELAGE ALONE OBTAINED IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Robert S. Osborne and John P. Mugler, Jr. September 1952. 71p. diagrs., photos., tabs. (NACA RM L52E14)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. SWEEP SERIES. Richard E. Kuhn and Paul G. Fournier. September 1952. 30p. diagrs., photos. (NACA RM L52G11a)

AERODYNAMIC LOAD MEASUREMENTS OVER A LEADING-EDGE SLAT ON A 40° SWEPTBACK WING AT MACH NUMBERS FROM 0.10 TO 0.91. Jones F. Cahill and Robert J. Nuber. September 1952. 32p. diagrs., photos., tab. (NACA RM L52G18a)

ROCKET-MODEL INVESTIGATION TO DETERMINE THE FORCE AND HINGE-MOMENT CHARACTERISTICS OF A HALF-DELTA TIP CONTROL ON A 59° SWEPTBACK DELTA WING BETWEEN MACH NUMBERS OF 0.55 AND 1.43. C. William Martz, James D. Church, and John W. Goslee. October 1952. 53p. diagrs., photos., tab. (NACA RM L52H06)

SOME EFFECTS OF SPOILER HEIGHT, WING FLEXIBILITY, AND WING THICKNESS ON ROLLING EFFECTIVENESS AND DRAG OF UNSWEPT WINGS AT MACH NUMBERS BETWEEN 0.4 AND 1.7. E. M. Fields. October 1952. 20p. diagrs., photo. (NACA RM L52H18)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE INTERFERENCE BETWEEN A 45° SWEPTBACK WING AND A SYSTEMATIC SERIES OF FOUR BODIES. Donald L. Loving and Dewey E. Wornom. November 1952. 42p. diagrs., photos., tabs. (NACA RM L52J01)

THE EFFECTS OF TIP-MOUNTED JET NACELLES ON THE TRANSONIC CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS. Charles F. Coe. December 1952. 81p. diagrs., photos., tabs. (NACA RM A52J21)

FREE-FLIGHT INVESTIGATION OF THE ZERO-LIFT DRAG OF SEVERAL WINGS AT SUPERSONIC MACH NUMBERS EXTENDING TO 2.6. Russell N. Hopko and Carl A. Sandahl. December 1952. 19p. diagrs., photos., tabs. (NACA RM L52D29)

A SMALL-SCALE INVESTIGATION OF THE EFFECT OF SPANWISE AND CHORDWISE POSITIONING OF AN OGIVE-CYLINDER UNDERWING NACELLE ON THE HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK TAPERED-IN-THICKNESS WING OF ASPECT RATIO 6. H. Norman Silvers and Thomas J. King, Jr. December 1952. 57p. diagrs., tab. (NACA RM L52J22)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE CHARACTERISTICS OF A TWISTED AND CAMBERED 45° SWEPTBACK WING-FUSELAGE CONFIGURATION. Daniel E. Harrison. December 1952. 20p. diagrs. (NACA RM L52K18)

ROCKET-MODEL INVESTIGATION OF LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING A 60° DELTA WING AND A HIGH UNSWEPT HORIZONTAL TAIL. Robert F. Peck and Jesse L. Mitchell. January 1953. 28p. diagrs., photo. (NACA RM L52K04a)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF WING INCIDENCE ANGLE ON THE CHARACTERISTICS OF TWO WING-BODY COMBINATIONS. Francis G. Morgan, Jr. January 1953. 28p. diagrs., photo. (NACA RM L52K06a)

TRANSONIC WIND-TUNNEL INVESTIGATION OF AN UNSWEPT WING IN COMBINATION WITH A SYSTEMATIC SERIES OF FOUR BODIES. Bruce B. Estabrooks. January 1953. 25p. diagrs., photos. (NACA RM L52K12a)

SMALL-SCALE TRANSONIC INVESTIGATION OF A 45° SWEPTBACK WING OF ASPECT RATIO 4 WITH COMBINATIONS OF NOSE-FLAP DEFLECTIONS AND WING TWIST. William J. Alford, Jr., and Kenneth P. Spreemann. January 1953. 23p. diagrs., photo. (NACA RM L52K13)

INITIAL FLUTTER TESTS IN THE LANGLEY TRANSONIC BLOWDOWN TUNNEL AND COMPARISON WITH FREE-FLIGHT FLUTTER RESULTS. William J. Bursnall. January 1953. 19p. diagrs., photos., tabs. (NACA RM L52K14)

EFFECTS OF WING ELASTICITY ON THE AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WINGS AS OBTAINED FROM FREE-FLIGHT ROCKET-MODEL TESTS AT TRANSONIC SPEEDS. A. James Vitale. January 1953. 49p. diagrs., photos., tab. (NACA RM L52L30)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - COMPARISON OF THREE WINGS OF ASPECT RATIO 2 OF RECTANGULAR, SWEPTBACK, AND TRIANGULAR PLAN FORM, INCLUDING EFFECTS OF THICKNESS DISTRIBUTION. Ronald C. Hightower. February 1953. 30p. diagrs., tabs. (NACA RM A52L02)

TRANSONIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION. EFFECT OF LONGITUDINAL WING POSITION AND DIVISION OF WING AND FUSELAGE FORCES AND MOMENTS. Joseph M. Hallissy and Donald R. Bowman. February 1953. 39p. diagrs., photo. (NACA RM L52K04)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF AN UNSWEPT-WING-BODY COMBINATION AT ANGLES OF ATTACK UP TO 24°. Bruce B. Estabrooks. February 1953. 23p. diagrs., tab. (NACA RM L52L19)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF LONGITUDINAL WING LOCATION AND VARYING BODY SIZE ON THE INTERFERENCE CHARACTERISTICS OF A 45° SWEPTBACK WING. Donald L. Loving. March 1953. 31p. diagrs., photo., tabs. (NACA RM L52L16)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A 60° TRIANGULAR WING IN COMBINATION WITH A SYSTEMATIC SERIES OF THREE BODIES. Thomas C. Kelly. April 1953. 22p. diagrs., photo. (NACA RM L52L22a)

EFFECT OF LEADING-EDGE CHORD-EXTENSIONS ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT MACH NUMBERS OF 0.40 TO 1.03. F. E. West, Jr., George Liner, and Gladys S. Martz. April 1953. 40p. diagrs., photo. (NACA RM L53B02)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. James W. Wiggins and Paul G. Fournier. April 1953. 25p. diagrs., photos. (NACA RM L53B25a)

SUBSONIC STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A WING-BODY COMBINATION HAVING A POINTED WING OF ASPECT RATIO 2 WITH CONSTANT-PERCENT-CHORD TRAILING-EDGE ELEVONS. Donald W. Smith and Verlin D. Reed. May 1953. 143p. diagrs., photos., tab. (NACA RM A53C20)

A TRANSONIC INVESTIGATION BY THE FREE-FALL METHOD OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WING AND TAIL SURFACES. Stanley Faber and John M. Eggleston. June 1953. 41p. diagrs., photos., tabs. (NACA RM L53D10)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A RECTANGULAR WING OF ASPECT RATIO 2 OSCILLATING ABOUT THE MIDCHORD. Edward Widmayer, Jr., Sherman A. Clevenson, and Sumner A. Leadbetter. August 1953. 45p. diagrs., tabs. (NACA RM L53F19)

TRANSONIC AERODYNAMIC CHARACTERISTICS IN PITCH OF A W-WING HAVING 60° 48' PANEL SWEEP, ASPECT RATIO 3.5, AND TAPER RATIO 0.25. William D. Morrison, Jr. August 1953. 18p. diagrs., photo. (NACA RM L53F22)

RESULTS OF MEASUREMENTS OF MAXIMUM LIFT AND BUFFETING INTENSITIES OBTAINED DURING FLIGHT INVESTIGATION OF THE NORTHROP X-4 RESEARCH AIRPLANE. Thomas F. Baker. August 1953. 22p. diagrs., photos., tab. (NACA RM L53G06)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL AND STATIC LATERAL STABILITY CHARACTERISTICS OF A WING-FUSELAGE COMBINATION HAVING A TRIANGULAR WING OF ASPECT RATIO 2.31 AND AN NACA 65A003 AIRFOIL. James W. Wiggins. August 1953. 28p. diagrs., photos. (NACA RM L53G09a)

INVESTIGATION OF THE EFFECTS OF LEADING-EDGE FLAPS ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT MACH NUMBERS FROM 0.40 TO 0.93 OF A WING-FUSELAGE CONFIGURATION WITH A 45° SWEPTBACK WING OF ASPECT RATIO 4. Kenneth P. Spreemann and William J. Alford, Jr. August 1953. 36p. diagrs., photo., tabs. (NACA RM L53G13)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS IN PITCH AND SIDESLIP AT HIGH SUBSONIC SPEEDS OF A WING-FUSELAGE COMBINATION HAVING A TRIANGULAR WING OF ASPECT RATIO 4. Paul G. Fournier. August 1953. 23p. diagrs., photos. (NACA RM L53G14a)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A FENCE AND A LEADING-EDGE NOTCH ON THE AERODYNAMIC LOADING CHARACTERISTICS IN PITCH OF A 45° SWEPTBACK WING AT HIGH SUBSONIC SPEEDS. Richard E. Kuhn, James W. Wiggins, and Andrew L. Byrnes, Jr. October 1953. 56p. diagrs., photo., tabs. (NACA RM L53H24)

WIND-TUNNEL INVESTIGATION OF A 45° SWEPTBACK WING HAVING A SYMMETRICAL ROOT AND A HIGHLY CAMBERED TIP, INCLUDING THE EFFECTS OF FENCES AND LATERAL CONTROLS. Joseph W. Cleary and Lee E. Boddy. November 1953. 52p. diagrs., photo. (NACA RM A53I21)

WING LOADS ON THE BELL X-1 RESEARCH AIRPLANE (10-PERCENT-THICK WING) AS DETERMINED BY PRESSURE-DISTRIBUTION MEASUREMENTS IN FLIGHT AT SUBSONIC AND TRANSONIC SPEEDS. Ronald J. Knapp and Gareth H. Jordan. November 1953. 35p. diagrs., photo., tab. (NACA RM L53G14)

SOME EFFECTS OF LEADING-EDGE ROUGHNESS ON THE AILERON EFFECTIVENESS AND DRAG OF A THIN RECTANGULAR WING EMPLOYING A FULL-SPAN PLAIN AILERON AT MACH NUMBERS FROM 0.6 TO 1.5. Roland D. English. November 1953. 16p. diagrs., photos. (NACA RM L53I25)

RESULTS OF A ROCKET-MODEL INVESTIGATION OF CONTROL-SURFACE BUZZ AND FLUTTER ON A 4-PERCENT-THICK UNSWEPT WING AND ON 6-, 9-, AND 12-PERCENT-THICK SWEPT WINGS AT TRANSONIC SPEEDS. Allen B. Henning. November 1953. 33p. diagrs., photos., tabs. (NACA RM L53I29)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECT OF SPOILER PROFILE ON THE LATERAL CONTROL CHARACTERISTICS OF A WING-FUSELAGE COMBINATION WITH QUARTER-CHORD LINE SWEPT BACK 32.6° AND NACA 65A006 AIRFOIL SECTION. Harold S. Johnson. November 1953. 15p. diagrs. (NACA RM L53J05a)

CALCULATED LATERAL FREQUENCY RESPONSE AND LATERAL OSCILLATORY CHARACTERISTICS FOR SEVERAL HIGH-SPEED AIRPLANES IN VARIOUS FLIGHT CONDITIONS. Byron M. Jaquet. December 1953. 72p. diagrs., tabs. (NACA RM L53J01)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A SPOILER-SLOT-DEFLECTOR COMBINATION ON AN UNSWEPT NACA 65A006 WING. Raymond D. Vogler. December 1953. 27p. diagrs., 3 tabs. (NACA RM L53J21)

INVESTIGATION AT TRANSONIC SPEEDS OF THE LATERAL-CONTROL AND HINGE-MOMENT CHARACTERISTICS OF A FLAP-TYPE SPOILER AILERON ON A 60° DELTA WING. Harleth G. Wiley and Robert T. Taylor. January 1954. 22p. diagrs. (NACA RM L53J05)

THE TWISTING EFFECT AT TRANSONIC SPEEDS OF SPOILER AILERONS ON A 45° SWEPTBACK, ASPECT-RATIO-4, TAPERED WING. Alexander D. Hammond and Jean C. Graven, Jr. January 1954. 21p. diagrs., photo. (NACA RM L53K03a)

FLIGHT INVESTIGATION OF THE ROLLING EFFECTIVENESS OF FINGERED SEMAPHORE SPOILERS ON A TAPERED 45° SWEPTBACK WING BETWEEN MACH NUMBERS 0.6 AND 1.3. James D. Church. January 1954. 27p. diagrs., photos. (NACA RM L53K20)

THE EFFECTS OF CHANGES IN ASPECT RATIO AND TAIL HEIGHT ON THE LONGITUDINAL STABILITY CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A MODEL WITH A WING HAVING 32.6° SWEEPBACK. William J. Alford, Jr. and Thomas B. Pasteur, Jr. February 1954. 61p. diagrs., photos., tab. (NACA RM L53L09)

SUMMARY OF SOME ROCKET-MODEL INVESTIGATIONS OF EFFECTS OF WING ASPECT RATIO AND THICKNESS ON AILERON ROLLING EFFECTIVENESS INCLUDING SOME EFFECTS OF SPANWISE AILERON LOCATION FOR SWEPTBACK WINGS WITH ASPECT RATIO OF 8.0. H. Kurt Strass. February 1954. 26p. diagrs., photos., tab. (NACA RM L53L11)

FREE-FLIGHT MEASUREMENTS OF THE ROLLING EFFECTIVENESS AND DRAG OF TRAILING-EDGE SPOILERS ON A TAPERED SWEPTBACK WING AT MACH NUMBERS BETWEEN 0.6 AND 1.4. Eugene D. Schult and E. M. Fields. February 1954. 14p. diagrs., photos. (NACA RM L53L14a)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS TO DETERMINE THE ROLLING DERIVATIVES OF TWO WING-FUSELAGE COMBINATIONS HAVING TRIANGULAR WINGS, INCLUDING A SEMIEMPIRICAL METHOD OF ESTIMATING THE ROLLING DERIVATIVES. James W. Wiggins. February 1954. 32p. diagrs. (NACA RM L53L18a)

THE EFFECTS OF CIRCULAR END PLATES ON THE LIFT, DRAG, AND PITCHING MOMENT AT SUBSONIC AND SUPERSONIC SPEEDS ON A MODIFIED TRIANGULAR WING HAVING AN ASPECT RATIO OF 2, A TAPER RATIO OF 0.33, AND A 45° SWEPT LEADING EDGE. Robert B. Petersen. March 1954. 16p. diagrs., tab. (NACA RM A53J14)

THE EFFECTS OF HORIZONTAL-TAIL LOCATION AND SIZE ON THE SUBSONIC LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Bruce E. Tinling and Armando E. Lopez. March 1954. 85p. diagrs., photo., tabs. (NACA RM A53L15)

ROCKET-POWERED-MODEL INVESTIGATION OF THE HINGE-MOMENT AND NORMAL-FORCE CHARACTERISTICS OF A HALF-DIAMOND TIP CONTROL ON A 60° SWEPTBACK DIAMOND WING BETWEEN MACH NUMBERS OF 0.5 AND 1.3. James D. Church. April 1954. 30p. diagrs., photos., tab. (NACA RM L54C10)

WIND-TUNNEL INVESTIGATION OF EFFECT OF SWEEP ON ROLLING DERIVATIVES AT ANGLES OF ATTACK UP TO 13° AND AT HIGH SUBSONIC MACH NUMBERS, INCLUDING A SEMIEMPIRICAL METHOD OF ESTIMATING THE ROLLING DERIVATIVES. James W. Wiggins. April 1954. 47p. diagrs., tab. (NACA RM L54C26)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING SWEPTBACK-, M-, W-, AND CRANKED-WING PLAN FORMS AND SEVERAL HORIZONTAL-TAIL LOCATIONS. Kenneth W. Goodson and Robert E. Becht. May 1954. 72p. diagrs., photo. (NACA RM L54C29)

A WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE LATERAL CONTROL CHARACTERISTICS OF VARIOUS PLAIN SPOILER CONFIGURATIONS ON A 3-PERCENT-THICK 60° DELTA WING. Harleth G. Wiley. May 1954. 45p. diagrs., tabs. (NACA RM L54D01)

SUBSONIC FLIGHT INVESTIGATION OF METHODS TO IMPROVE THE DAMPING OF LATERAL OSCILLATIONS BY MEANS OF A VISCOUS DAMPER IN THE RUDDER SYSTEM IN CONJUNCTION WITH ADJUSTED HINGE-MOMENT PARAMETERS. Harold L. Crane, George J. Hurt, Jr., and John M. Elliott. June 1954. 46p. diagrs., photos., tab. (NACA RM L54D09)

FLIGHT INVESTIGATION OF AN AILERON AND A SPOILER ON A WING OF THE X-3 AIRPLANE PLAN FORM AT MACH NUMBERS FROM 0.5 TO 1.6. Roland D. English. June 1954. 16p. diagrs., photos. (NACA RM L54D26a)

A COMPARISON OF THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT MACH NUMBERS UP TO 0.94 OF SWEPTBACK WINGS HAVING NACA 4-DIGIT OR NACA 64A THICKNESS DISTRIBUTIONS. Fred B. Sutton and Jerald K. Dickson. August 1954. 67p. diagrs., tab. (NACA RM A54F18)

PRESSURE DISTRIBUTIONS ON PLUG- AND SEMAPHORE-TYPE SPOILER AILERONS ON A 35° SWEPTBACK WING OF ASPECT RATIO 4, TAPER RATIO 0.6, AND NACA 65A006 AIRFOIL SECTION AT HIGH SUBSONIC SPEEDS. Alexander D. Hammond and William C. Hayes, Jr. August 1954. 55p. diagrs., tabs. (NACA RM L54F08)

A FLIGHT STUDY OF COMPRESSIBILITY EFFECTS ON THE GUST LOADS OF A 35° SWEPTBACK-WING AIRPLANE. Harry C. Mickleboro and Jack Funk. August 1954. 23p. diagrs., tabs. (NACA RM L54G09a)

THE EFFECT OF WING PROFILE ON THE TRANSONIC CHARACTERISTICS OF RECTANGULAR AND TRIANGULAR WINGS HAVING ASPECT RATIOS OF 3 - TRANSONIC BUMP TECHNIQUE. Warren H. Nelson and Joseph L. Frank. October 1954. 33p. diagrs., photo., tab. (NACA RM A54H12a)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEEDS TO DETERMINE THE ROLLING-STABILITY DERIVATIVES OF THREE WING-FUSELAGE CONFIGURATIONS. William C. Sleeman, Jr. October 1954. 43p. diagrs. (NACA RM L54H11)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING CROPPED-DELTA, SWEPT, AND UNSWEPT WINGS AND SEVERAL HORIZONTAL-TAIL HEIGHTS. Kenneth W. Goodson and Robert E. Becht. October 1954. 44p. diagrs. (NACA RM L54H12)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL FORCE AND MOMENT CHARACTERISTICS OF A PLANE AND A CAMBERED 3-PERCENT-THICK DELTA WING OF ASPECT RATIO 3 ON A SLENDER BODY. Dale L. Burrows and William E. Palmer. November 1954. 31p. diagrs., photos., tab. (NACA RM L54H25)

(1) AERODYNAMICS

EFFECT OF A WING LEADING-EDGE FLAP AND CHORD-EXTENSION ON THE HIGH SUBSONIC CONTROL CHARACTERISTICS OF A SPOILER-SLOT-DEFLECTOR CONTROL LOCATED AT TWO SPANWISE POSITIONS. Robert F. Thompson and Robert T. Taylor. November 1954. 73p. diagrs., photo., tabs. (NACA RM L54I09)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF THE LIFT AND HINGE-MOMENT CHARACTERISTICS OF A FLAP WITH ATTACHED BALANCING TAB ON A 45° SWEPTBACK WING. Raymond D. Vogler. December 1954. 63p. diagrs. (NACA RM L54J28a)

THE EFFECTS OF TRAILING-EDGE FLAPS ON THE SUBSONIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Bruce E. Tinling and A. V. Karpen. January 1955. 37p. diagrs., photos., tabs. (NACA RM A54L07)

FLIGHT MEASUREMENTS OF ELEVON HINGE MOMENTS ON THE XF-92A DELTA-WING AIRPLANE. Clinton T. Johnson and Albert E. Kuhl. January 1955. 26p. diagrs., photos., tab. (NACA RM H54J25a)

AERODYNAMIC LOADING CHARACTERISTICS IN SIDESLIP OF A 45° SWEPTBACK WING WITH AND WITHOUT A FENCE AT HIGH SUBSONIC SPEEDS. Richard E. Kuhn and Andrew L. Byrnes, Jr. January 1955. 40p. diagrs., photo., tab. (NACA RM L54K15)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF LEADING-EDGE POROUS SUCTION ON A 4-PERCENT-THICK 60° DELTA WING. E. Carson Yates, Jr. March 1955. 73p. diagrs., photo., tabs. (NACA RM L54L21)

FLIGHT MEASUREMENTS AT TRANSONIC SPEEDS OF THE BUFFETING CHARACTERISTICS OF THE XF-92A DELTA-WING RESEARCH AIRPLANE. Thomas F. Baker and Wallace E. Johnson. April 1955. 32p. diagrs., photos., tab. (NACA RM H54L03)

EXPERIMENTAL FLUTTER INVESTIGATION OF A THIN UNSWEPT WING AT TRANSONIC SPEEDS. George L. Pratt. April 1955. 24p. diagrs., tabs. (NACA RM L55A18)

A CORRELATION OF AIRFOIL SECTION DATA WITH THE AERODYNAMIC LOADS MEASURED ON A 45° SWEPTBACK WING MODEL AT SUBSONIC MACH NUMBERS. Harold J. Walker and William C. Maillard. May 1955. 78p. diagrs., photo., tabs. (NACA RM A55C08)

FLIGHT MEASUREMENTS OF WING LOADS ON THE CONVAIR XF-92A DELTA-WING AIRPLANE. Albert E. Kuhl and Clinton T. Johnson. May 1955. 37p. diagrs., photos., tab. (NACA RM H55D12)

SIMPLIFIED PROCEDURES FOR ESTIMATING FLAP-CONTROL LOADS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1955. 14p. diagrs. (NACA RM L55E12)

AN INVESTIGATION OF LOADS ON AILERONS AT TRANSONIC SPEEDS. Jack F. Runckel and W. H. Gray. May 1955. 8p. diagrs. (NACA RM L55E13)

A STUDY OF THE APPLICATION OF AIRFOIL SECTION DATA TO THE ESTIMATION OF THE HIGH SUBSONIC SPEED CHARACTERISTICS OF SWEPT WINGS. Lynn W. Hunton. June 1955. 37p. diagrs., tab. (NACA RM A55C23)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Maurice D. White. June 1955. 39p. diagrs., photos., tabs. (NACA RM A55D18)

INVESTIGATION OF THE EFFECTS OF MODEL SCALE AND STREAM REYNOLDS NUMBER ON THE AERODYNAMIC CHARACTERISTICS OF TWO RECTANGULAR WINGS AT SUPERSONIC SPEEDS IN THE LANGLEY 9-INCH SUPERSONIC TUNNEL. Donald E. Coletti. June 1955. 32p. diagrs. (NACA RM L55D29)

SOME FACTORS AFFECTING THE VARIATION OF PITCHING MOMENT WITH SIDESLIP OF AIRCRAFT CONFIGURATIONS. Edward C. Polhamus. July 1955. 29p. diagrs. (NACA RM L55E20b)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECTS OF LEADING-EDGE RADIUS ON THE AERODYNAMIC CHARACTERISTICS OF A SWEPTBACK-WING—FUSELAGE COMBINATION WITH LEADING-EDGE FLAPS AND CHORD-EXTENSIONS. Kenneth P. Spreemann. July 1955. 42p. diagrs., photo., tabs. (NACA RM L55E25a)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY OF TWO 45° SWEPTBACK WINGS AS INFLUENCED BY REYNOLDS NUMBERS UP TO 8.20×10^6 AND MACH NUMBERS UP TO 0.303. Gerald V. Foster and William C. Schneider. July 1955. 65p. diagrs. (NACA RM L55F06)

A STUDY OF THE ZERO-LIFT DRAG-RISE CHARACTERISTICS OF WING-BODY COMBINATIONS NEAR THE SPEED OF SOUND. Richard T. Whitcomb. 1956. ii, 22p. diagrs., tabs. (NACA Rept. 1273. Supersedes RM L52H08)

THEORY OF WING-BODY DRAG AT SUPERSONIC SPEEDS. Robert T. Jones. 1956. ii, 7p. diagrs. (NACA Rept. 1284. Supersedes RM A53H18a)

LIFT AND MOMENT COEFFICIENTS FOR AN OSCILLATING RECTANGULAR WING-AILERON CONFIGURATION IN SUPERSONIC FLOW. Julian H. Berman. July 1956. 46p. diagrs. (NACA TN 3644)

AERODYNAMIC CHARACTERISTICS AND FLYING QUALITIES OF A TAILLESS TRIANGULAR-WING AIRPLANE CONFIGURATION AS OBTAINED FROM FLIGHTS OF ROCKET-PROPELLED MODELS AT TRANSONIC AND LOW SUPERSONIC SPEEDS. Grady L. Mitcham, Joseph E. Stevens, and Harry P. Norris. November 1956. 57p. diagrs., photos., tabs. (NACA TN 3753. Supersedes RM L9L07)

EXPERIMENTAL INVESTIGATION ON THE LANGLEY HELICOPTER TEST TOWER OF COMPRESSIBILITY EFFECTS ON A ROTOR HAVING NACA 63_2-015 AIRFOIL SECTIONS. James P. Shivers and Paul J. Carpenter. December 1956. 28p. diagrs., photo. (NACA TN 3850)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS IN PITCH OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. Thomas J. King, Jr., and Thomas B. Pasteur, Jr. December 1956. 36p. diagrs., photos., tab. (NACA TN 3867. Supersedes RM L53E20)

EXPERIMENTAL DETERMINATION OF THE RANGE OF APPLICABILITY OF THE TRANSONIC AREA RULE FOR WINGS OF TRIANGULAR PLAN FORM. William A. Page. December 1956. 22p. diagrs., photos. (NACA TN 3872)

SUBSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECT OF FUSELAGE AFTERBODY ON DIRECTIONAL STABILITY OF WING-FUSELAGE COMBINATIONS AT HIGH ANGLES OF ATTACK. Edward C. Polhamus and Kenneth P. Spreemann. December 1956. 25p. diagrs., photo., tab. (NACA TN 3896)

A METHOD FOR PREDICTING LIFT INCREMENTS DUE TO FLAP DEFLECTION AT LOW ANGLES OF ATTACK IN INCOMPRESSIBLE FLOW. John G. Lowry and Edward C. Polhamus. January 1957. 29p. diagrs. (NACA TN 3911)

COMPARISON OF CALCULATED AND EXPERIMENTAL LOAD DISTRIBUTIONS ON THIN WINGS AT HIGH SUBSONIC AND SONIC SPEEDS. John L. Crigler. January 1957. 46p. diagrs., tab. (NACA TN 3941)

INVESTIGATION OF THE EFFECTS OF LEADING-EDGE CHORD-EXTENSIONS AND FENCES IN COMBINATION WITH LEADING-EDGE FLAPS ON THE AERODYNAMIC CHARACTERISTICS AT MACH NUMBERS FROM 0.40 TO 0.93 OF A 45° SWEPTBACK WING OF ASPECT RATIO 4. Kenneth P. Spreemann and William J. Alford, Jr. April 1957. 45p. diagrs., photo., tabs. (NACA TN 3845. Supersedes RM L53A09a)

A COLLECTION OF DATA FOR ZERO-LIFT DAMPING IN ROLL OF WING-BODY COMBINATIONS AS DETERMINED WITH ROCKET-POWERED MODELS EQUIPPED WITH ROLL-TORQUE NOZZLES. David G. Stone. April 1957. 23p. diagrs., tab. (NACA TN 3955. Supersedes RM L53E26)

SOME EFFECTS OF TAIL HEIGHT AND WING PLAN FORM ON THE STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A SMALL-SCALE MODEL AT HIGH SUBSONIC SPEEDS. Albert G. Few, Jr., and Thomas J. King, Jr. May 1957. 62p. diagrs., photo. (NACA TN 3957. Supersedes RM L54G12)

EFFECTS OF HORIZONTAL-TAIL POSITION AND A WING LEADING-EDGE MODIFICATION CONSISTING OF A FULL-SPAN FLAP AND A PARTIAL-SPAN CHORD-EXTENSION ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT HIGH SUBSONIC SPEEDS OF A MODEL WITH A 45° SWEPTBACK WING. William D. Morrison, Jr., and William J. Alford, Jr. June 1957. 37p. diagrs., photo., tab. (NACA TN 3952. Supersedes RM L53E06)

INVESTIGATION AT TRANSONIC SPEEDS OF DEFLECTORS AND SPOILERS AS GUST ALLEVIATORS ON A 35° SWEPT WING. TRANSONIC-BUMP METHOD. Delwin R. Croom and Jarrett K. Huffman. June 1957. 19p. diagrs. (NACA TN 4006)

(1.2.2.7) WAKE

INVESTIGATION OF DOWNWASH, SIDEWASH, AND MACH NUMBER DISTRIBUTION BEHIND A RECTANGULAR WING AT A MACH NUMBER OF 2.41. D. Adamson and William B. Boatright. September 14, 1950. 115p. diagrs., photos., tab. (NACA RM L50G12)

A SMALL-SCALE INVESTIGATION OF "M" AND "W" WINGS AT TRANSONIC SPEEDS. George S. Campbell and William D. Morrison, Jr. October 2, 1950. 30p. diagrs., photo., tab. (NACA RM L50H25a)

INFLUENCE OF FUSELAGE AND CANARD-TYPE CONTROL SURFACE ON THE FLOW FIELD ADJACENT TO A REARWARD FUSELAGE STATION AT A MACH NUMBER OF 2.0 - DATA PRESENTATION. Evan A. Fradenburgh, Leonard J. Obery, and John F. Mello. January 1952. 25p. diagrs., photos. (NACA RM E51K05)

EFFECTS OF CHORD DISCONTINUITIES AND CHORDWISE FENCES ON LOW-SPEED STATIC LONGITUDINAL STABILITY OF AN AIRPLANE MODEL HAVING A 35° SWEPTBACK WING. Byron M. Jaquet. June 1952. 54p. photos., diagrs., tab. (NACA RM L52C25)

INFLUENCE OF A CANARD-TYPE CONTROL SURFACE ON THE INTERNAL AND EXTERNAL PERFORMANCE CHARACTERISTICS OF NACELLE-MOUNTED SUPERSONIC DIFFUSERS (CONICAL CENTERBODY) AT A REARWARD BODY STATION FOR A MACH NUMBER OF 2.0. L. J. Obery and H. S. Krasnow. August 1952. 24p. diagrs. (NACA RM E52F16)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

PRESSURE DISTRIBUTION AT LOW SPEED ON A MODEL INCORPORATING A W WING WITH ASPECT RATIO 6, 45° SWEEP, TAPER RATIO 0.6, AND AN NACA 65A009 AIRFOIL SECTION. Edward C. Polhamus and Albert G. Few, Jr. August 1952. 46p. diagrs., photo. (NACA RM L52F11)

AERODYNAMIC CHARACTERISTICS IN PITCH OF THREE STRUCTURALLY SIMILAR FLEXIBLE WINGS WITH 45° SWEEP: A SWEPTBACK WING, A WING WITH M PLAN FORM, AND A WING WITH W PLAN FORM. John W. McKee, Delwin R. Croom, and Rodger L. Naeseth. December 1953. 43p. diagrs., photos. (NACA RM L53J02a)

THE EFFECTS OF HORIZONTAL-TAIL LOCATION AND SIZE ON THE SUBSONIC LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Bruce E. Tinling and Armando E. Lopez. March 1954. 85p. diagrs., photo., tabs. (NACA RM A53L15)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE SUBSONIC-FLOW FIELDS BENEATH SWEPT AND UNSWEPT WINGS WITH TABLES OF VORTEX-INDUCED VELOCITIES. William J. Alford, Jr. August 1956. 91p. diagrs., photo., tabs. (NACA TN 3738)

A STUDY OF SEVERAL FACTORS AFFECTING THE STABILITY CONTRIBUTED BY A HORIZONTAL TAIL AT VARIOUS VERTICAL POSITIONS ON A SWEPTBACK-WING AIRPLANE MODEL. Gerald V. Foster and Roland F. Griner. November 1956. 28p. diagrs., tab. (NACA TN 3848. Supersedes RM L9H19)

AERODYNAMIC INTERFERENCE OF SLENDER WING-TAIL COMBINATIONS. Alvin H. Sacks. January 1957. 81p. diagrs., photos. (NACA TN 3725)

SIDEWASH IN THE VICINITY OF LIFTING SWEPT WINGS AT SUPERSONIC SPEEDS. Percy J. Bobbitt and Peter J. Maxie, Jr. February 1957. 49p. diagrs. (NACA TN 3938)

(1.2.2.8) BOUNDARY LAYER

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS AT A MACH NUMBER OF 1.53 INCLUDING EFFECT OF SMALL VARIATIONS OF SWEEP. Robert T. Madden. January 26, 1949. 71p. diagrs., photos., tabs. (NACA RM A8J04)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - INVESTIGATION AT A MACH NUMBER OF 1.53 TO DETERMINE THE EFFECTS OF CAMBERING AND TWISTING THE WING FOR UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. Robert T. Madden. May 6, 1949. 33p. diagrs., photo., tabs. (NACA RM A9C07)

EFFECTS OF CHORD DISCONTINUITIES AND CHORDWISE FENCES ON LOW-SPEED STATIC LONGITUDINAL STABILITY OF AN AIRPLANE MODEL HAVING A 35° SWEPTBACK WING. Byron M. Jaquet. June 1952. 54p. photos., diagrs., tab. (NACA RM L52C25)

THE HYDRODYNAMIC CHARACTERISTICS OF MODIFIED RECTANGULAR FLAT PLATES HAVING ASPECT RATIOS OF 1.00, 0.25, AND 0.125 AND OPERATING NEAR A FREE WATER SURFACE. Kenneth L. Wadlin, John A. Ramsen, and Victor L. Vaughan, Jr. 1955. ii, 50p. diagrs., photos. (NACA Rept. 1246. Supersedes TN 3079; TN 3249)

A CORRELATION OF AIRFOIL SECTION DATA WITH THE AERODYNAMIC LOADS MEASURED ON A 45° SWEPTBACK WING MODEL AT SUBSONIC MACH NUMBERS. Harold J. Walker and William C. Maillard. May 1955. 78p. diagrs., photo., tabs. (NACA RM A55C08)

TURBULENT SHEAR SPECTRA AND LOCAL ISOTROPY IN THE LOW-SPEED BOUNDARY LAYER. Virgil A. Sandborn and Willis H. Braun. September 1956. 84p. diagrs. (NACA TN 3761)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. I - SIMILARITY WITH RESPECT TO STATIONARY RECTANGULAR COORDINATES. Arthur G. Hansen and Howard Z. Herzig. October 1956. 30p. tab. (NACA TN 3768)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. II - SIMILARITY WITH RESPECT TO STATIONARY POLAR COORDINATES. Howard Z. Herzig and Arthur G. Hansen. November 1956. 16p. tab. (NACA TN 3832)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. III - SIMILARITY WITH RESPECT TO STATIONARY POLAR COORDINATES FOR SMALL ANGLE VARIATION. Howard Z. Herzig and Arthur G. Hansen. January 1957. 36p. diagrs., photos., tab. (NACA TN 3890)

AN EXPERIMENTAL HYDRODYNAMIC INVESTIGATION OF THE INCEPTION OF VORTEX VENTILATION. John A. Ramsen. April 1957. 31p. diagrs., photos. (NACA TN 3903)

(1.2.2.8.1) Characteristics

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

AERODYNAMIC CHARACTERISTICS OF A 68.4° DELTA WING AT MACH NUMBERS OF 1.6 AND 1.9 OVER A WIDE REYNOLDS NUMBER RANGE. John E. Hatch, Jr., and James J. Gallagher. November 1953. 44p. diagrs., photos., tabs. (NACA RM L53I08)

(1.2.2.8.2) Control

THE USE OF AREA SUCTION FOR THE PURPOSE OF DELAYING SEPARATION OF AIR FLOW AT THE LEADING EDGE OF A 63° SWEPT-BACK WING. Woodrow L. Cook, Roy N. Griffin, Jr., and Gerald M. McCormack. November 22, 1950. 68p. diagrs., photo., tab. (NACA RM A50H09)

THE EFFECTS OF BOUNDARY-LAYER CONTROL ON THE LONGITUDINAL CHARACTERISTICS OF A SWEPT-BACK WING USING SUCTION THROUGH STREAMWISE SLOTS IN THE OUTBOARD PORTION OF THE WING. Gerald M. McCormack and William H. Tolhurst, Jr. January 5, 1951. 34p. diagrs., photo., tabs. (NACA RM A50K06)

THE USE OF AREA SUCTION FOR THE PURPOSE OF DELAYING SEPARATION OF AIR FLOW AT THE LEADING EDGE OF A 63° SWEPT-BACK WING - EFFECTS OF CONTROLLING THE CHORDWISE DISTRIBUTION OF SUCTION-AIR VELOCITIES. Woodrow L. Cook and Mark W. Kelly. January 1952. 51p. diagrs., photo., tab. (NACA RM A51J24)

THE EFFECTS OF SUCTION THROUGH POROUS LEADING-EDGE SURFACES ON THE AERODYNAMIC CHARACTERISTICS OF A 47.5° SWEPTBACK WING-FUSELAGE COMBINATION AT A REYNOLDS NUMBER OF 4.4×10^6. Jerome Pasamanick and William I. Scallion. March 1952. 61p. diagrs., photo., tabs. (NACA RM L51K15)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

THE USE OF AREA SUCTION FOR THE PURPOSE OF IMPROVING TRAILING-EDGE FLAP EFFECTIVENESS ON A 35° SWEPTBACK WING. Woodrow L. Cook, Curt A. Holzhauser, and Mark W. Kelly. July 1953. 77p. diagrs., photos., tabs. (NACA RM A53E06)

THE USE OF A LEADING-EDGE AREA-SUCTION FLAP TO DELAY SEPARATION OF AIR FLOW FROM THE LEADING EDGE OF A 35° SWEPTBACK WING. Curt A. Holzhauser and Robert K. Martin. December 1953. 42p. diagrs., photos., tabs. (NACA RM A53J26)

THE USE OF AREA SUCTION TO INCREASE THE EFFECTIVENESS OF A TRAILING-EDGE FLAP ON A TRIANGULAR WING OF ASPECT RATIO 2. Mark W. Kelly and William H. Tolhurst, Jr. April 1954. 44p. diagrs., photos. (NACA RM A54A25)

EFFECT ON THE LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A 49° SWEPTBACK WING HAVING AN ASPECT RATIO OF 3.78 OF BLOWING AIR OVER THE TRAILING-EDGE FLAP AND AILERON. Edward F. Whittle, Jr., and Stanley Lipson. April 1954. 51p. diagrs., photo., tab. (NACA RM L54C05)

A PRELIMINARY INVESTIGATION OF THE USE OF CIRCULATION CONTROL TO INCREASE THE LIFT OF A 45° SWEPTBACK WING BY SUCTION THROUGH TRAILING-EDGE SLOTS. Woodrow L. Cook, Roy N. Griffin, Jr., and David H. Hickey. December 1954. 56p. diagrs., photo., tabs. (NACA RM A54I21)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF LEADING-EDGE POROUS SUCTION ON A 4-PERCENT-THICK 60° DELTA WING. E. Carson Yates, Jr. March 1955. 73p. diagrs., photo., tabs. (NACA RM L54L21)

AERODYNAMIC CHARACTERISTICS AND PRESSURE DISTRIBUTIONS OF A 6-PERCENT-THICK 49° SWEPTBACK WING WITH BLOWING OVER HALF-SPAN AND FULL-SPAN FLAPS. Edward F. Whittle, Jr., and H. Clyde McLemore. September 1955. 71p. diagrs., photo., tabs. (NACA RM L55F02)

FULL-SCALE WIND TUNNEL TESTS OF A 35° SWEPTBACK WING AIRPLANE WITH HIGH-VELOCITY BLOWING OVER THE TRAILING-EDGE FLAPS. Mark W. Kelly and William H. Tolhurst, Jr. November 1955. 49p. diagrs., photos., tab. (NACA RM A55I09)

WIND-TUNNEL AND FLIGHT INVESTIGATIONS OF THE USE OF LEADING-EDGE AREA SUCTION FOR THE PURPOSE OF INCREASING THE MAXIMUM LIFT COEFFICIENT OF A 35° SWEPT-WING AIRPLANE. Curt A. Holzhauser and Richard S. Bray. 1956. ii, 24p. diagrs., photos., tabs. (NACA Rept. 1276. Supersedes RM A52G17; RM A55C07)

EFFECT OF AREA-SUCTION-TYPE BOUNDARY-LAYER CONTROL ON THE LANDING-APPROACH CHARACTERISTICS OF A 35° SWEPT-WING FIGHTER. George E. Cooper and Robert C. Innis. February 1956. 35p. diagrs., photos., tabs. (NACA RM A55K14)

FLIGHT MEASUREMENTS OF THE LOW-SPEED CHARACTERISTICS OF A 35° SWEPT-WING AIRPLANE WITH AREA-SUCTION BOUNDARY-LAYER CONTROL ON THE FLAPS. Seth B. Anderson and Hervey C. Quigley. February 1956. 35p. diagrs., photos., tab. (NACA RM A55K29)

FLIGHT MEASUREMENTS OF THE LOW-SPEED CHARACTERISTICS OF A 35° SWEPT-WING AIRPLANE WITH BLOWING-TYPE BOUNDARY-LAYER CONTROL ON THE TRAILING-EDGE FLAPS. Seth B. Anderson, Hervey C. Quigley, and Robert C. Innis. October 1956. 52p. diagrs., photos., tabs. (NACA RM A56G30)

(1.3)
Bodies

A PRESSURE-DISTRIBUTION INVESTIGATION OF A SUPERSONIC AIRCRAFT FUSELAGE AND CALIBRATION OF THE MACH NUMBER 1.59 NOZZLE OF THE LANGLEY 4- BY 4-FOOT SUPERSONIC TUNNEL. Morton Cooper, Norman F. Smith, and Julian H. Kainer. July 29, 1949. 51p. diagrs., photos., tabs. (NACA RM L9E27a)

NOTE ON SOME OBSERVED EFFECTS OF ROCKET-MOTOR OPERATION ON THE BASE PRESSURES OF BODIES IN FREE FLIGHT. Paul E. Purser, Joseph G. Thibodaux, and H. Herbert Jackson. November 16, 1950. 28p. diagrs., tabs. (NACA RM L50I18)

DATA PRESENTATION OF FORCE CHARACTERISTICS OF SEVERAL ENGINE-STRUT-BODY CONFIGURATIONS AT MACH NUMBERS OF 1.8 AND 2.0. Robert T. Madden and Emil J. Kremzier. August 1951. 32p. diagrs. (NACA RM E51E29)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - BODY OF REVOLUTION. John C. Heitmeyer. October 1951. 10p. diagrs. (NACA RM A51H22)

AERODYNAMICS OF SLENDER BODIES AT MACH NUMBER OF 3.12 AND REYNOLDS NUMBERS FROM 2×10^6 TO 15×10^6. I - BODY OF REVOLUTION WITH NEAR-PARABOLIC FOREBODY AND CYLINDRICAL AFTERBODY. John R. Jack and Warren C. Burgess. November 1951. 47p. diagrs., photos. (NACA RM E51H13)

AERODYNAMIC CHARACTERISTICS OF A SLENDER CONE-CYLINDER BODY OF REVOLUTION AT A MACH NUMBER OF 3.85. John R. Jack. November 1951. 24p. diagrs., photos. (NACA RM E51H17)

JET EFFECTS ON PRESSURES AND DRAGS OF BODIES. Warren Gillespie, Jr. November 1951. 12p. diagrs. (NACA RM L51J29)

OBSERVATIONS OF UNSTEADY FLOW PHENOMENA FOR AN INCLINED BODY FITTED WITH STABILIZING FINS. Merrill H. Mead. January 1952. 23p. diagrs., photos. (NACA RM A51K05)

AERODYNAMIC INTERFERENCE EFFECTS ON NORMAL AND AXIAL FORCE COEFFICIENTS OF SEVERAL ENGINE-STRUT-BODY CONFIGURATIONS AT MACH NUMBERS OF 1.8 AND 2.0. Emil J. Kremzier and Murray Dryer. April 1952. 35p. diagrs., tab. (NACA RM E52B21)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE INTERFERENCE BETWEEN A 45° SWEPT-BACK WING AND A SYSTEMATIC SERIES OF FOUR BODIES. Donald L. Loving and Dewey E. Wornom. November 1952. 42p. diagrs., photos., tabs. (NACA RM L52J01)

TRANSONIC FLOW PAST CONE CYLINDERS. George E. Solomon, California Institute of Technology. 1955. ii, 16p. diagrs., photos. (NACA Rept. 1242. Supersedes TN 3213)

AERODYNAMIC INVESTIGATION OF A PARABOLIC BODY OF REVOLUTION AT MACH NUMBER OF 1.92 AND SOME EFFECTS OF AN ANNULAR SUPERSONIC JET EXHAUSTING FROM THE BASE. Eugene S. Love. September 1956. 62p. diagrs., photos., tab. (NACA TN 3709. Supersedes RM L9K09)

DRAG INTERFERENCE BETWEEN A POINTED CYLINDRICAL BODY AND TRIANGULAR WINGS OF VARIOUS ASPECT RATIOS AT MACH NUMBERS OF 1.50 AND 2.02. Elliott D. Katzen and George E. Kaattari. November 1956. 41p. diagrs., photos., tabs. (NACA TN 3794. Supersedes RM A51C27)

LIFT AND PITCHING-MOMENT INTERFERENCE BETWEEN A POINTED CYLINDRICAL BODY AND TRIANGULAR WINGS OF VARIOUS ASPECT RATIOS AT MACH NUMBERS OF 1.50 AND 2.02. Jack N. Nielsen, Elliott D. Katzen, and Kenneth K. Tang. December 1956. 49p. diagrs., photos., tabs. (NACA TN 3795. Supersedes RM A50F06)

AERODYNAMIC CHARACTERISTICS OF A CIRCULAR CYLINDER AT MACH NUMBER 6.86 AND ANGLES OF ATTACK UP TO 90°. Jim A. Penland. January 1957. 32p. diagrs., photos. (NACA TN 3861. Supersedes RM L54A14)

INVESTIGATION OF VARIATION IN BASE PRESSURE OVER THE REYNOLDS NUMBER RANGE IN WHICH WAKE TRANSITION OCCURS FOR NONLIFTING BODIES OF REVOLUTION AT MACH NUMBERS FROM 1.62 TO 2.62. Vernon Van Hise. January 1957. 41p. diagrs., photo. (NACA TN 3942)

ON STOKES'-STREAM FUNCTION IN COMPRESSIBLE SMALL-DISTURBANCE THEORY. Milton D. Van Dyke. February 1957. 15p. diagrs. (NACA TN 3877)

(1.3.1)
THEORY

EXPERIMENTAL AND THEORETICAL STUDY OF THE EFFECTS OF BODY SIZE ON THE AERODYNAMIC CHARACTERISTICS OF AN ASPECT RATIO 3.0 WING-BODY COMBINATION. Edward J. Hopkins and Hubert C. Carel. October 1951. 52p. diagrs., photos., tabs. (NACA RM A51G24)

SOME EFFECTS OF FIN PLAN FORM ON THE STATIC STABILITY OF FIN-BODY COMBINATIONS AT MACH NUMBER 4.06. Edward F. Ulmann and Robert W. Dunning. July 1952. 20p. diagrs., photos. (NACA RM L52D15a)

PRESSURES AND ASSOCIATED AERODYNAMIC AND LOAD CHARACTERISTICS FOR TWO BODIES OF REVOLUTION AT TRANSONIC SPEEDS. Harold L. Robinson. March 1954. 34p. diagrs., tab. (NACA RM L53L28a)

AXIALLY SYMMETRIC SHAPES WITH MINIMUM WAVE DRAG. Max. A. Heaslet and Franklyn B. Fuller. 1956. ii, 16p. diagrs. (NACA Rept. 1256. Supersedes TN 3389)

ON BOATTAIL BODIES OF REVOLUTION HAVING MINIMUM WAVE DRAG. Keith C. Harder and Conrad Rennemann, Jr. 1956. ii, 9p. diagrs., tabs. (NACA Rept. 1271. Supersedes TN 3478)

THREE-DIMENSIONAL TRANSONIC FLOW THEORY APPLIED TO SLENDER WINGS AND BODIES. Max. A. Heaslet and John R. Spreiter. July 1956. 72p. diagrs. (NACA TN 3717)

SUPERSONIC FLOW PAST NONLIFTING BUMPED AND INDENTED BODIES OF REVOLUTION. F. Edward McLean and Conrad Rennemann, Jr. September 1956. 39p. diagrs. (NACA TN 3744)

STABILITY DERIVATIVES OF CONES AT SUPERSONIC SPEEDS. Murray Tobak and William R. Wehrend. September 1956. 43p. diagrs. (NACA TN 3788)

CALCULATION OF THE FORCES AND MOMENTS ON A SLENDER FUSELAGE AND VERTICAL FIN PENETRATING LATERAL GUSTS. John M. Eggleston. October 1956. 20p. diagrs., tab. (NACA TN 3805)

MINIMUM-DRAG DUCTED AND CLOSED THREE-POINT BODY OF REVOLUTION BASED ON LINEARIZED SUPERSONIC THEORY. Hermon M. Parker. December 1956. 20p. diagrs., tab. (NACA TN 3704)

BASE PRESSURE AT SUPERSONIC SPEEDS ON TWO-DIMENSIONAL AIRFOILS AND ON BODIES OF REVOLUTION WITH AND WITHOUT FINS HAVING TURBULENT BOUNDARY LAYERS. Eugene S. Love. January 1957. 65p. diagrs., photos. (NACA TN 3819. Supersedes RM L53C02)

THE LINEARIZED SUBSONIC FLOW ABOUT SYMMETRICAL NONLIFTING WING-BODY COMBINATIONS. John B. McDevitt. April 1957. 67p. diagrs. (NACA TN 3964)

(1.3.2)
SHAPE VARIABLES

FLIGHT INVESTIGATION OF THE DRAG OF ROUND-NOSED BODIES OF REVOLUTION AT MACH NUMBERS FROM 0.6 TO 1.5 USING ROCKET-PROPELLED TEST VEHICLES. Roger G. Hart. July 1951. 9p. diagrs., photos., tab. (NACA RM L51E25)

FLOW SEPARATION FROM RODS AHEAD OF BLUNT NOSES AT MACH NUMBER 2.72. Jim J. Jones. July 1952. 18p. diagrs., photos. (NACA RM L52E05a)

BUFFETING OF A VERTICAL TAIL ON AN INCLINED BODY AT SUPERSONIC MACH NUMBERS. Forrest E. Gowen. March 1953. 35p. diagrs., photos., tab. (NACA RM A53A09)

EFFECT OF VARIATIONS IN REYNOLDS NUMBER ON THE AERODYNAMIC CHARACTERISTICS OF THREE BOMB OR STORE SHAPES AT A MACH NUMBER OF 1.62 WITH AND WITHOUT FINS. Robert W. Rainey. June 1953. 40p. diagrs., photos., tab. (NACA RM L53D27)

A STUDY OF THE MOTION AND AERODYNAMIC HEATING OF MISSILES ENTERING THE EARTH'S ATMOSPHERE AT HIGH SUPERSONIC SPEEDS. H. Julian Allen and A. J. Eggers, Jr. August 1953. 62p. diagrs., photo. (NACA RM A53D28)

A STUDY OF THE EFFECTS OF BODY SHAPE ON THE VORTEX WAKES OF INCLINED BODIES AT A MACH NUMBER OF 2. Forrest E. Gowen and Edward W. Perkins. December 1953. 25p. diagrs., photos. (NACA RM A53I17)

MEASURED AND ESTIMATED LATERAL STATIC AND ROTARY DERIVATIVES OF A 1/12-SCALE MODEL OF A HIGH-SPEED FIGHTER AIRPLANE WITH UNSWEPT WINGS. James L. Williams. January 1954. 24p. diagrs., photos., tab. (NACA RM L53K09)

EXPERIMENTAL DRAG COEFFICIENTS OF ROUND NOSES WITH CONICAL WINDSHIELDS AT MACH NUMBER 2.72. Jim J. Jones. June 1955. 18p. diagrs., photos. (NACA RM L55E10)

ON BOATTAIL BODIES OF REVOLUTION HAVING MINIMUM WAVE DRAG. Keith C. Harder and Conrad Rennemann, Jr. 1956. ii, 9p. diagrs., tabs. (NACA Rept. 1271. Supersedes TN 3478)

MEASUREMENTS OF BOUNDARY-LAYER TRANSITION AT LOW SPEED ON TWO BODIES OF REVOLUTION IN A LOW-TURBULENCE WIND TUNNEL. Frederick W. Boltz, George C. Kenyon, and Clyde Q. Allen. September 1956. 14p. diagrs., photos., tabs. (NACA RM A56G17)

SUPERSONIC FLOW PAST NONLIFTING BUMPED AND INDENTED BODIES OF REVOLUTION. F. Edward McLean and Conrad Rennemann, Jr. September 1956. 39p. diagrs. (NACA TN 3744)

CALCULATION OF THE FORCES AND MOMENTS ON A SLENDER FUSELAGE AND VERTICAL FIN PENETRATING LATERAL GUSTS. John M. Eggleston. October 1956. 20p. diagrs., tab. (NACA TN 3805)

MINIMUM-DRAG DUCTED AND CLOSED THREE-POINT BODY OF REVOLUTION BASED ON LINEARIZED SUPERSONIC THEORY. Hermon M. Parker. December 1956. 20p. diagrs., tab. (NACA TN 3704)

BASE PRESSURE AT SUPERSONIC SPEEDS ON TWO-DIMENSIONAL AIRFOILS AND ON BODIES OF REVOLUTION WITH AND WITHOUT FINS HAVING TURBULENT BOUNDARY LAYERS. Eugene S. Love. January 1957. 65p. diagrs., photos. (NACA TN 3819. Supersedes RM L53C02)

TABLES OF CHARACTERISTIC FUNCTIONS FOR SOLVING BOUNDARY-VALUE PROBLEMS OF THE WAVE EQUATION WITH APPLICATION TO SUPERSONIC INTERFERENCE. Jack N. Nielsen. February 1957. 245p. diagrs., tabs. (NACA TN 3873)

EFFECT OF BLUNTNESS ON TRANSITION FOR A CONE AND A HOLLOW CYLINDER AT MACH 3.1. Paul F. Brinich and Norman Sands. May 1957. 42p. diagrs. (NACA TN 3979)

(1. 3. 2. 1) FINENESS RATIO

SOME EFFECTS OF FIN PLAN FORM ON THE STATIC STABILITY OF FIN-BODY COMBINATIONS AT MACH NUMBER 4.06. Edward F. Ulmann and Robert W. Dunning. July 1952. 20p. diagrs., photos. (NACA RM L52D15a)

EFFECT OF VARIATIONS IN REYNOLDS NUMBER ON THE AERODYNAMIC CHARACTERISTICS OF THREE BOMB OR STORE SHAPES AT A MACH NUMBER OF 1.62 WITH AND WITHOUT FINS. Robert W. Rainey. June 1953. 40p. diagrs., photos., tab. (NACA RM L53D27)

STATIC LATERAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 47.7° SWEPTBACK WING OF ASPECT RATIO 6 AND THE CONTRIBUTION OF VARIOUS MODEL COMPONENTS AT A REYNOLDS NUMBER OF 4.45×10^6. Roland F. Griner. September 1953. 83p. diagrs., photos., tabs. (NACA RM L53G09)

PRESSURE DISTRIBUTIONS ON THREE BODIES OF REVOLUTION TO DETERMINE THE EFFECT OF REYNOLDS NUMBER UP TO AND INCLUDING THE TRANSONIC SPEED RANGE. John M. Swihart and Charles F. Whitcomb. October 1953. 39p. diagrs., photo., tab. (NACA RM L53H04)

THE HYDRODYNAMIC FORCE CHARACTERISTICS OF STREAMLINE BODIES OF REVOLUTION HAVING FINENESS RATIOS OF 6, 9, AND 12 WITH AND WITHOUT CHINE STRIPS. Bernard Weinflash and Rudolph E. Fontana. March 1955. 157p. diagrs., photos., tabs. (NACA RM L54K22)

EXPERIMENTAL STEADY-STATE YAWING DERIVATIVES OF A 60° DELTA-WING MODEL AS AFFECTED BY CHANGES IN VERTICAL POSITION OF THE WING AND IN RATIO OF FUSELAGE DIAMETER TO WING SPAN. Byron M. Jaquet and Herman S. Fletcher. October 1956. 20p. diagrs., tab. (NACA TN 3843)

EFFECTS OF FUSELAGE NOSE LENGTH AND A CANOPY ON THE STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF 45° SWEPTBACK AIRPLANE MODELS HAVING FUSELAGES WITH SQUARE CROSS SECTIONS. Byron M. Jaquet and H. S. Fletcher. April 1957. 47p. diagrs., photos., tabs. (NACA TN 3961)

(1. 3. 2. 2) CROSS SECTION

EFFECT OF VERTICAL POSITION OF THE WING ON THE AERODYNAMIC CHARACTERISTICS OF THREE WING-BODY COMBINATIONS. John C. Heitmeyer. February 1953. 56p. diagrs., photo., tabs. (NACA RM A52L15a)

EXPERIMENTAL INVESTIGATION AT LOW SPEED OF THE EFFECTS OF WING POSITION ON THE STATIC STABILITY OF MODELS HAVING FUSELAGES OF VARIOUS CROSS SECTION AND UNSWEPT AND 45° SWEPTBACK SURFACES. William Letko. November 1956. 77p. diagrs., photo., tabs. (NACA TN 3857)

EFFECTS OF FUSELAGE NOSE LENGTH AND A CANOPY ON THE STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF 45° SWEPTBACK AIRPLANE MODELS HAVING FUSELAGES WITH SQUARE CROSS SECTIONS. Byron M. Jaquet and H. S. Fletcher. April 1957. 47p. diagrs., photos., tabs. (NACA TN 3961)

(1. 3. 2. 3)
THICKNESS DISTRIBUTION

FLIGHT INVESTIGATION OF THE DRAG OF ROUND-NOSED BODIES OF REVOLUTION AT MACH NUMBERS FROM 0.6 TO 1.5 USING ROCKET-PROPELLED TEST VEHICLES. Roger G. Hart. July 1951. 9p. diagrs., photos., tab. (NACA RM L51E25)

PRESSURES AND ASSOCIATED AERODYNAMIC AND LOAD CHARACTERISTICS FOR TWO BODIES OF REVOLUTION AT TRANSONIC SPEEDS. Harold L. Robinson. March 1954. 34p. diagrs., tab. (NACA RM L53L28a)

SUBSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECT OF FUSELAGE AFTERBODY ON DIRECTIONAL STABILITY OF WING-FUSELAGE COMBINATIONS AT HIGH ANGLES OF ATTACK. Edward C. Polhamus and Kenneth P. Spreemann. December 1956. 25p. diagrs., photo., tab. (NACA TN 3896)

(1. 3. 2. 4)
SURFACE CONDITIONS

FLIGHT MEASUREMENTS OF PRESSURES ON BASE AND REAR PART OF FUSELAGE OF THE BELL X-1 RESEARCH AIRPLANE AT TRANSONIC SPEEDS, INCLUDING POWER EFFECTS. Ronald J. Knapp and Wallace E. Johnson. January 1953. 31p. diagrs., photos. (NACA RM L52L01)

ZERO-LIFT DRAG OF A SERIES OF BOMB SHAPES AT MACH NUMBERS FROM 0.60 TO 1.10. William E. Stoney, Jr., and John F. Royall. July 1956. 12p. diagrs., photos., tabs. (NACA RM L56D16)

(1. 3. 2. 5)
PROTUBERANCES

DATA PRESENTATION OF FORCE CHARACTERISTICS OF SEVERAL ENGINE-STRUT-BODY CONFIGURATIONS AT MACH NUMBERS OF 1.8 AND 2.0. Robert T. Madden and Emil J. Kremzier. August 1951. 32p. diagrs. (NACA RM E51E29)

PRELIMINARY INVESTIGATION OF USE OF CONICAL FLOW SEPARATION FOR EFFICIENT SUPERSONIC DIFFUSION. W. E. Moeckel and P. J. Evans, Jr. December 1951. 15p. photos., diagrs. (NACA RM E51J08)

AERODYNAMIC INTERFERENCE EFFECTS ON NORMAL AND AXIAL FORCE COEFFICIENTS OF SEVERAL ENGINE-STRUT-BODY CONFIGURATIONS AT MACH NUMBERS OF 1.8 AND 2.0. Emil J. Kremzier and Murray Dryer. April 1952. 35p. diagrs., tab. (NACA RM E52B21)

FLOW SEPARATION FROM RODS AHEAD OF BLUNT NOSES AT MACH NUMBER 2.72. Jim J. Jones. July 1952. 18p. diagrs., photos. (NACA RM L52E05a)

EFFECT ON TRANSONIC AND SUPERSONIC DRAG OF A FUSELAGE PROTUBERANCE DESIGNED TO IMPROVE THE AREA DISTRIBUTION OF AN ESSENTIALLY UNSWEPT WING-FUSELAGE COMBINATION. Carl A. Sandahl. January 1954. 10p. diagrs., photos., tab. (NACA RM L53K10)

EXPERIMENTAL DRAG COEFFICIENTS OF ROUND NOSES WITH CONICAL WINDSHIELDS AT MACH NUMBER 2.72. Jim J. Jones. June 1955. 18p. diagrs., photos. (NACA RM L55E10)

(1.3.3)
CANOPIES

A PRESSURE-DISTRIBUTION INVESTIGATION OF A SUPERSONIC AIRCRAFT FUSELAGE AND CALIBRATION OF THE MACH NUMBER 1.59 NOZZLE OF THE LANGLEY 4- BY 4-FOOT SUPERSONIC TUNNEL. Morton Cooper, Norman F. Smith, and Julian H. Kainer. July 29, 1949. 51p. diagrs., photos., tabs. (NACA RM L9E27a)

EFFECTS OF FUSELAGE NOSE LENGTH AND A CANOPY ON THE STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF 45° SWEPTBACK AIRPLANE MODELS HAVING FUSELAGES WITH SQUARE CROSS SECTIONS. Byron M. Jaquet and H. S. Fletcher. April 1957. 47p. diagrs., photos., tabs. (NACA TN 3961)

(1.3.4)
DUCTED BODIES

JET EFFECTS ON PRESSURES AND DRAGS OF BODIES. Warren Gillespie, Jr. November 1951. 12p. diagrs. (NACA RM L51J29)

PRELIMINARY INVESTIGATION OF USE OF CONICAL FLOW SEPARATION FOR EFFICIENT SUPERSONIC DIFFUSION. W. E. Moeckel and P. J. Evans, Jr. December 1951. 15p. photos., diagrs. (NACA RM E51J08)

AN INVESTIGATION OF THREE NACA 1-SERIES NOSE INLETS AT SUBSONIC AND TRANSONIC SPEEDS. Robert E. Pendley, Joseph R. Milillo, and Frank F. Fleming. January 1953. 71p. diagrs., photos., tab. (NACA RM L52J23)

AN EXPERIMENTAL STUDY OF FIVE ANNULAR AIR INLET CONFIGURATIONS AT SUBSONIC AND TRANSONIC SPEEDS. Robert E. Pendley, Joseph R. Milillo, Frank F. Fleming, and Carroll R. Bryan. August 1953. 86p. diagrs., tabs. (NACA RM L53F18a)

APPLICATION OF TRANSONIC AREA RULE TO A SHARP-LIPPED DUCTED NACELLE. Richard E. Walters. January 1954. 11p. diagrs., tab. (NACA RM L53J09b)

CHARACTERISTICS OF FOUR NOSE INLETS AS MEASURED AT MACH NUMBERS BETWEEN 1.4 AND 2.0. George B. Brajnikoff and Arthur W. Rogers. August 1956. 48p. diagrs., photos. (NACA TN 3724. Supersedes RM A51C12)

MINIMUM-DRAG DUCTED AND CLOSED THREE-POINT BODY OF REVOLUTION BASED ON LINEARIZED SUPERSONIC THEORY. Hermon M. Parker. December 1956. 20p. diagrs., tab. (NACA TN 3704)

(1.3.4.1) NOSE SHAPE

FLIGHT INVESTIGATION OF THE DRAG OF ROUND-NOSED BODIES OF REVOLUTION AT MACH NUMBERS FROM 0.6 TO 1.5 USING ROCKET-PROPELLED TEST VEHICLES. Roger G. Hart. July 1951. 9p. diagrs., photos., tab. (NACA RM L51E25)

FLIGHT DETERMINATION OF DRAG AND PRESSURE RECOVERY OF A NOSE INLET OF PARABOLIC PROFILE AT MACH NUMBERS FROM 0.8 TO 1.7. Richard I. Sears and C. F. Merlet. October 1951. 22p. diagrs., photo. (NACA RM L51E02)

EXPERIMENTAL INVESTIGATION OF THE EFFECT OF FOREBODY BLUNTNESS ON THE PRESSURE RECOVERY AND DRAG OF A TWIN-SCOOP INLET-BODY COMBINATION AT MACH NUMBERS OF 1.4 AND 1.7. John F. Stroud. February 1952. 20p. diagrs., photos. (NACA RM A51K14)

FORCE AND PRESSURE-RECOVERY CHARACTERISTICS AT SUPERSONIC SPEEDS OF A CONICAL NOSE INLET WITH BYPASSES DISCHARGING OUTWARD FROM THE BODY AXIS. Andrew Beke and J. L. Allen. March 1953. 20p. diagrs., photo., tab. (NACA RM E52L18a)

AN EXPERIMENTAL STUDY OF FIVE ANNULAR AIR INLET CONFIGURATIONS AT SUBSONIC AND TRANSONIC SPEEDS. Robert E. Pendley, Joseph R. Mililo, Frank F. Fleming, and Carroll R. Bryan. August 1953. 86p. diagrs., tabs. (NACA RM L53F18a)

FLIGHT DETERMINATION OF DRAG OF NORMAL-SHOCK NOSE INLETS WITH VARIOUS COWLING PROFILES AT MACH NUMBERS FROM 0.9 TO 1.5. R. I. Sears, C. F. Merlet, and L. W. Putland. 1956. ii, 19p. diagrs., photos., tabs. (NACA Rept. 1281. Supersedes RM L53I25a)

(1.3.4.3) SIDE INLETS

AN EXPERIMENTAL INVESTIGATION AT LARGE SCALE OF AN NACA SUBMERGED INTAKE AND DEFLECTOR INSTALLATION ON THE REARWARD PORTION OF A FUSELAGE. Curt A. Holzhauser. August 30, 1950. 22p. diagrs., photos. (NACA RM A50F13)

FLIGHT DETERMINATION OF THE PRESSURE RECOVERY AND DRAG CHARACTERISTICS OF A TWIN SIDE-INLET MODEL AT TRANSONIC SPEEDS. Howard S. Carter and Charles F. Merlet. July 1953. 35p. diagrs., photos., tabs. (NACA RM L53E05)

(1.3.4.4) SIDE EXITS

FORCE AND PRESSURE-RECOVERY CHARACTERISTICS AT SUPERSONIC SPEEDS OF A CONICAL NOSE INLET WITH BYPASSES DISCHARGING OUTWARD FROM THE BODY AXIS. Andrew Beke and J. L. Allen. March 1953. 20p. diagrs., photo., tab. (NACA RM E52L18a)

(1.4)
Internal Aerodynamics

AN EXPERIMENTAL STUDY OF FIVE ANNULAR AIR INLET CONFIGURATIONS AT SUBSONIC AND TRANSONIC SPEEDS. Robert E. Pendley, Joseph R. Mililo, Frank F. Fleming, and Carroll R. Bryan. August 1953. 86p. diagrs., tabs. (NACA RM L53F18a)

MEASUREMENTS AND PREDICTIONS OF FLOW CONDITIONS ON A TWO-DIMENSIONAL BASE SEPARATING A MACH NUMBER 3.36 JET AND A MACH NUMBER 1.55 OUTER STREAM. Donald E. Coletti. May 1954. 56p. diagrs., photos. (NACA RM L54C08)

ATTENUATION IN A SHOCK TUBE DUE TO UNSTEADY-BOUNDARY-LAYER ACTION. Harold Mirels. August 1956. 60p. diagrs. (NACA TN 3278)

NONUNIFORMITIES IN SHOCK-TUBE FLOW DUE TO UNSTEADY-BOUNDARY-LAYER ACTION. Harold Mirels and W. H. Braun. May 1957. 45p. diagrs. (NACA TN 4021)

THERMODYNAMIC STUDY OF A ROOTS COMPRESSOR AS A SOURCE OF HIGH-TEMPERATURE AIR. Clarence B. Cohen, Richard R. Woollett, and Kenneth C. Weston. June 1957. 34p. diagrs., tab. (NACA TN 4025)

(1.4.1)
AIR INLETS

PRELIMINARY INVESTIGATION OF A TRANSLATING COWL TECHNIQUE FOR IMPROVING TAKE-OFF PERFORMANCE OF A SHARP-LIP SUPERSONIC DIFFUSER. Edgar M. Cortright, Jr. November 1951. 11p. diagrs., photos. (NACA RM E51I24)

PERFORMANCE COMPARISON OF THREE CANARD-TYPE RAM-JET MISSILE CONFIGURATIONS AT MACH NUMBERS FROM 1.5 TO 2.0. Evan A. Fradenburgh and Emil J. Kremzier. August 1953. 31p. diagrs., tabs. (NACA RM E53F11)

AN EXPERIMENTAL STUDY OF FIVE ANNULAR AIR INLET CONFIGURATIONS AT SUBSONIC AND TRANSONIC SPEEDS. Robert E. Pendley, Joseph R. Mililo, Frank F. Fleming, and Carroll R. Bryan. August 1953. 86p. diagrs., tabs. (NACA RM L53F18a)

APPLICATION OF TRANSONIC AREA RULE TO A SHARP-LIPPED DUCTED NACELLE. Richard E. Walters. January 1954. 11p. diagrs., tab. (NACA RM L53J09b)

IMPINGEMENT OF DROPLETS IN 60° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Paul G. Saper, and Charles F. Kadow. October 1956. 54p. diagrs., tabs. (NACA TN 3770)

EFFECT OF AMBIENT-TEMPERATURE VARIATION ON THE MATCHING REQUIREMENTS OF INLET-ENGINE COMBINATIONS AT SUPERSONIC SPEEDS. Eugene Perchonok and Donald P. Hearth. January 1957. 16p. diagrs. (NACA TN 3834)

WIND-TUNNEL TECHNIQUE FOR SIMULTANEOUS SIMULATION OF EXTERNAL FLOW FIELD ABOUT NACELLE INLET AND EXIT AIRSTREAMS AT SUPERSONIC SPEEDS. Gerald W. Englert and Roger W. Luidens. January 1957. 25p. diagrs. (NACA TN 3881)

ANALYTICAL INVESTIGATION OF THE EFFECT OF WATER INJECTION ON SUPERSONIC TURBOJET-ENGINE - INLET MATCHING AND THRUST AUGMENTATION. Andrew Beke. January 1957. 25p. diagrs. (NACA TN 3922)

(1.4.1.1)
NOSE, CENTRAL

AN INVESTIGATION OF THREE NACA 1-SERIES NOSE INLETS AT SUBSONIC AND TRANSONIC SPEEDS. Robert E. Pendley, Joseph R. Mililo, and Frank F. Fleming. January 1953. 71p. diagrs., photos., tab. (NACA RM L52J23)

EXPERIMENTAL INVESTIGATION OF THE EFFECT OF ENTRANCE WIDTH-TO-HEIGHT RATIO ON THE PERFORMANCE OF AN AUXILIARY SCOOP-TYPE INLET AT MACH NUMBERS FROM 0 TO 1.3. George B. Brajnikoff and John F. Stroud. July 1953. 16p. diagrs., photos. (NACA RM A53E28)

AN EXPERIMENTAL STUDY OF FIVE ANNULAR AIR INLET CONFIGURATIONS AT SUBSONIC AND TRANSONIC SPEEDS. Robert E. Pendley, Joseph R. Mililo, Frank F. Fleming, and Carroll R. Bryan. August 1953. 86p. diagrs., tabs. (NACA RM L53F18a)

FLIGHT DETERMINATION OF DRAG OF NORMAL-SHOCK NOSE INLETS WITH VARIOUS COWLING PROFILES AT MACH NUMBERS FROM 0.9 TO 1.5. R. I. Sears, C. F. Merlet, and L. W. Putland. 1956. ii, 19p. diagrs., photos., tabs. (NACA Rept. 1281. Supersedes RM L53I25a)

(1.4.1.1.1)
Propeller-Spinner-Cowl Combinations

EFFECT OF ROTATION OF AN NACA 1-SERIES E-TYPE COWLING ON THE INTERNAL FLOW AND FORCE CHARACTERISTICS OF THE COWLING AT MACH NUMBERS UP TO 0.84 AND AT AN ANGLE OF ATTACK OF 0°. Robert I. Sammonds and Robert M. Reynolds. October 1954. 54p. diagrs., photos., tabs. (NACA RM A54G14)

THE PRESSURE-RECOVERY AND PROPELLER-FORCE CHARACTERISTICS OF A PROPELLER-SPINNER-COWLING COMBINATION EMPLOYING NACA 4-(5)(05)-037 SIX- AND EIGHT-BLADE DUAL-ROTATION PROPELLERS WITH AN NACA 1-SERIES D-TYPE COWL. Robert I. Sammonds and Robert M. Reynolds. January 1955. 98p. diagrs., photos., tabs. (NACA RM A54J22)

INVESTIGATION OF HEAT TRANSFER FROM A STATIONARY AND ROTATING ELLIPSOIDAL FORE-BODY OF FINENESS RATIO 3. James P. Lewis and Robert S. Ruggeri. November 1956. 46p. diagrs., photo., tabs. (NACA TN 3837)

(1.4.1.1.2) Subsonic

EFFECT OF ROTATION OF AN NACA 1-SERIES E-TYPE COWLING ON THE INTERNAL FLOW AND FORCE CHARACTERISTICS OF THE COWLING AT MACH NUMBERS UP TO 0.84 AND AT AN ANGLE OF ATTACK OF 0°. Robert I. Sammonds and Robert M. Reynolds. October 1954. 54p. diagrs., photos., tabs. (NACA RM A54G14)

(1.4.1.1.3) Supersonic

FLIGHT DETERMINATION OF DRAG AND PRESSURE RECOVERY OF A NOSE INLET OF PARABOLIC PROFILE AT MACH NUMBERS FROM 0.8 TO 1.7. Richard I. Sears and C. F. Merlet. October 1951. 22p. diagrs., photo. (NACA RM L51E02)

INFLUENCE OF A CANARD-TYPE CONTROL SURFACE ON THE INTERNAL AND EXTERNAL PERFORMANCE CHARACTERISTICS OF NACELLE-MOUNTED SUPERSONIC DIFFUSERS (CONICAL CENTERBODY) AT A REARWARD BODY STATION FOR A MACH NUMBER OF 2.0. L. J. Obery and H. S. Krasnow. August 1952. 24p. diagrs. (NACA RM E52F16)

A THEORY FOR STABILITY AND BUZZ PULSATION AMPLITUDE IN RAM JETS AND AN EXPERIMENTAL INVESTIGATION INCLUDING SCALE EFFECTS. Robert L. Trimpi. 1956. ii, 24p. diagrs., photos., tabs. (NACA Rept. 1265. Supersedes RM L53G28)

AN ANALYSIS OF BUZZING IN SUPERSONIC RAM JETS BY A MODIFIED ONE-DIMENSIONAL NON-STATIONARY WAVE THEORY. Robert L. Trimpi. July 1956. 72p. diagrs., photos. (NACA TN 3695. Supersedes RM L52A18)

CHARACTERISTICS OF FOUR NOSE INLETS AS MEASURED AT MACH NUMBERS BETWEEN 1.4 AND 2.0. George B. Brajnikoff and Arthur W. Rogers. August 1956. 48p. diagrs., photos. (NACA TN 3724. Supersedes RM A51C12)

THE USE OF PERFORATED INLETS FOR EFFICIENT SUPERSONIC DIFFUSION. John C. Evvard and John W. Blakey. September 1956. 35p. diagrs., photo. (NACA TN 3767. Supersedes RM E51B10)

(1.4.1.2) NOSE, ANNULAR

PRELIMINARY INVESTIGATION OF USE OF CONICAL FLOW SEPARATION FOR EFFICIENT SUPERSONIC DIFFUSION. W. E. Moeckel and P. J. Evans, Jr. December 1951. 15p. photos., diagrs. (NACA RM E51J08)

INFLUENCE OF A CANARD-TYPE CONTROL SURFACE ON THE INTERNAL AND EXTERNAL PERFORMANCE CHARACTERISTICS OF NACELLE-MOUNTED SUPERSONIC DIFFUSERS (CONICAL CENTERBODY) AT A REARWARD BODY STATION FOR A MACH NUMBER OF 2.0. L. J. Obery and H. S. Krasnow. August 1952. 24p. diagrs. (NACA RM E52F16)

FORCE AND PRESSURE-RECOVERY CHARACTERISTICS AT SUPERSONIC SPEEDS OF A CONICAL NOSE INLET WITH BYPASSES DISCHARGING OUTWARD FROM THE BODY AXIS. Andrew Beke and J. L. Allen. March 1953. 20p. diagrs., photo., tab. (NACA RM E52L18a)

AN EXPERIMENTAL STUDY OF FIVE ANNULAR AIR INLET CONFIGURATIONS AT SUBSONIC AND TRANSONIC SPEEDS. Robert E. Pendley, Joseph R. Mililo, Frank F. Fleming, and Carroll R. Bryan. August 1953. 86p. diagrs., tabs. (NACA RM L53F18a)

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(1.4.1.3) WING LEADING EDGE

EXPERIMENTAL INVESTIGATION OF A TWO-DIMENSIONAL SPLIT-WING RAM-JET INLET AT MACH NUMBER OF 3.85. James F. Connors and Richard R. Woollett. August 1952. 28p. diagrs., photos. (NACA RM E52F04)

AN INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF AN AIR INLET INSTALLED IN THE ROOT OF A 45° SWEPT-BACK WING. Robert R. Howell and Arvid L. Keith, Jr. October 1952. 47p. diagrs., photos., tabs. (NACA RM L52H08a)

LOW-SPEED LONGITUDINAL STABILITY AND LATERAL-CONTROL CHARACTERISTICS OF A MODEL OF A 40° SWEPT-WING FIGHTER-TYPE AIRPLANE AT A REYNOLDS NUMBER OF 9×10^6. Thomas V. Bollech and H. Neale Kelly. February 1956. 149p. diagrs., photo., tabs. (NACA RM L54B17)

(1.4.1.4)
SIDE

EXPERIMENTAL INVESTIGATION OF THE EFFECT OF FOREBODY BLUNTNESS ON THE PRESSURE RECOVERY AND DRAG OF A TWIN-SCOOP INLET-BODY COMBINATION AT MACH NUMBERS OF 1.4 AND 1.7. John F. Stroud. February 1952. 20p. diagrs., photos. (NACA RM A51K14)

PERFORMANCE OF A NORMAL-SHOCK SCOOP INLET WITH BOUNDARY-LAYER CONTROL. Alson C. Frazer and Warren E. Anderson. June 1953. 31p. diagrs., photos. (NACA RM A53D29)

FLIGHT DETERMINATION OF THE PRESSURE RECOVERY AND DRAG CHARACTERISTICS OF A TWIN SIDE-INLET MODEL AT TRANSONIC SPEEDS. Howard S. Carter and Charles F. Merlet. July 1953. 35p. diagrs., photos., tabs. (NACA RM L53E05)

(1.4.1.4.1)
Scoops

PRELIMINARY INVESTIGATION OF A SUPERSONIC SCOOP INLET DERIVED FROM A CONICAL-SPIKE NOSE INLET. Charles E. Witliff and Robert W. Byrne. September 1951. 25p. diagrs., photos. (NACA RM L51G11)

EXPERIMENTAL INVESTIGATION OF THE EFFECT OF FOREBODY BLUNTNESS ON THE PRESSURE RECOVERY AND DRAG OF A TWIN-SCOOP INLET-BODY COMBINATION AT MACH NUMBERS OF 1.4 AND 1.7. John F. Stroud. February 1952. 20p. diagrs., photos. (NACA RM A51K14)

PERFORMANCE OF A NORMAL-SHOCK SCOOP INLET WITH BOUNDARY-LAYER CONTROL. Alson C. Frazer and Warren E. Anderson. June 1953. 31p. diagrs., photos. (NACA RM A53D29)

EXPERIMENTAL INVESTIGATION OF THE EFFECT OF ENTRANCE WIDTH-TO-HEIGHT RATIO ON THE PERFORMANCE OF AN AUXILIARY SCOOP-TYPE INLET AT MACH NUMBERS FROM 0 TO 1.3. George B. Brajnikoff and John F. Stroud. July 1953. 16p. diagrs., photos. (NACA RM A53E28)

(1.4.1.4.2)
Submerged

AN EXPERIMENTAL INVESTIGATION AT LARGE SCALE OF AN NACA SUBMERGED INTAKE AND DEFLECTOR INSTALLATION ON THE REARWARD PORTION OF A FUSELAGE. Curt A. Holzhauser. August 30, 1950. 22p. diagrs., photos. (NACA RM A50F13)

(1.4.2)
DUCTS

AN INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF AN AIR INLET INSTALLED IN THE ROOT OF A 45° SWEPT-BACK WING. Robert R. Howell and Arvid L. Keith, Jr. October 1952. 47p. diagrs., photos., tabs. (NACA RM L52H08a)

(1.4.2.1)
DIFFUSERS

PRELIMINARY INVESTIGATION OF A SUPERSONIC SCOOP INLET DERIVED FROM A CONICAL-SPIKE NOSE INLET. Charles E. Witliff and Robert W. Byrne. September 1951. 25p. diagrs., photos. (NACA RM L51G11)

FLIGHT DETERMINATION OF DRAG AND PRESSURE RECOVERY OF A NOSE INLET OF PARABOLIC PROFILE AT MACH NUMBERS FROM 0.8 TO 1.7. Richard I. Sears and C. F. Merlet. October 1951. 22p. diagrs., photo. (NACA RM L51E02)

FLIGHT DETERMINATION OF THE PRESSURE RECOVERY AND DRAG CHARACTERISTICS OF A TWIN SIDE-INLET MODEL AT TRANSONIC SPEEDS. Howard S. Carter and Charles F. Merlet. July 1953. 35p. diagrs., photos., tabs. (NACA RM L53E05)

EFFECTS OF COMBINING AUXILIARY BLEED WITH EJECTOR PUMPING ON THE POWER REQUIREMENTS AND TEST-SECTION FLOW OF AN 8-INCH BY 8-INCH SLOTTED TUNNEL. B. H. Little, Jr., and James M. Cubbage, Jr. July 1955. 44p. diagrs., photo. (NACA RM L55E25)

(1.4.2.1.1)
Subsonic

INFLUENCE OF A CANARD-TYPE CONTROL SURFACE ON THE INTERNAL AND EXTERNAL PERFORMANCE CHARACTERISTICS OF NACELLE-MOUNTED SUPERSONIC DIFFUSERS (CONICAL CENTERBODY) AT A REARWARD BODY STATION FOR A MACH NUMBER OF 2.0. L. J. Obery and H. S. Krasnow. August 1952. 24p. diagrs. (NACA RM E52F16)

THE INFLUENCE OF VORTEX GENERATORS ON THE PERFORMANCE OF A SHORT 1.9:1 STRAIGHT-WALL ANNULAR DIFFUSER WITH A WHIRLING INLET FLOW. Charles C. Wood and James T. Higginbotham. February 1953. 38p. diagrs., photo., tab. (NACA RM L52L01a)

FORCE AND PRESSURE-RECOVERY CHARACTERISTICS AT SUPERSONIC SPEEDS OF A CONICAL NOSE INLET WITH BYPASSES DISCHARGING OUTWARD FROM THE BODY AXIS. Andrew Beke and J. L. Allen. March 1953. 20p. diagrs., photo., tab. (NACA RM E52L18a)

PERFORMANCE CHARACTERISTICS OF A 24° STRAIGHT-OUTER-WALL ANNULAR-DIFFUSER-TAILPIPE COMBINATION UTILIZING RECTANGULAR VORTEX GENERATORS FOR FLOW CONTROL. Charles C. Wood and James T. Higginbotham. October 1953. 33p. diagrs., tabs. (NACA RM L53H17a)

ASPECTS OF INTERNAL-FLOW-SYSTEM DESIGN FOR HELICOPTER PROPULSIVE UNITS. John R. Henry. September 1954. 24p. diagrs. (NACA RM L54F29)

EFFECTS OF DIFFUSER AND CENTER-BODY LENGTH ON PERFORMANCE OF ANNULAR DIFFUSERS WITH CONSTANT-DIAMETER OUTER WALLS AND WITH VORTEX-GENERATOR FLOW CONTROLS. Charles C. Wood and James T. Higginbotham. September 1954. 39p. diagrs., photo., tab. (NACA RM L54G21)

INVESTIGATION OF TWO SHORT ANNULAR DIFFUSER CONFIGURATIONS UTILIZING SUCTION AND INJECTION AS A MEANS OF BOUNDARY-LAYER CONTROL. Stafford W. Wilbur and James T. Higginbotham. January 1955. 43p. diagrs. (NACA RM L54K18)

EXPLORATORY INVESTIGATION OF THE USE OF AREA SUCTION TO ELIMINATE AIR-FLOW SEPARATION IN DIFFUSERS HAVING LARGE EXPANSION ANGLES. Curt A. Holzhauser and Leo P. Hall. October 1956. 18p. diagrs. (NACA TN 3793)

ANALYTICAL INVESTIGATION OF THE EFFECT OF WATER INJECTION ON SUPERSONIC TURBOJET-ENGINE - INLET MATCHING AND THRUST AUGMENTATION. Andrew Beke. January 1957. 25p. diagrs. (NACA TN 3922)

INVESTIGATION OF A SHORT-ANNULAR-DIFFUSER CONFIGURATION UTILIZING SUCTION AS A MEANS OF BOUNDARY-LAYER CONTROL. Stafford W. Wilbur and James T. Higginbotham. June 1957. 33p. diagrs., photo. (NACA TN 3996)

(1.4.2.1.2) Supersonic

PRELIMINARY INVESTIGATION OF USE OF CONICAL FLOW SEPARATION FOR EFFICIENT SUPERSONIC DIFFUSION. W. E. Moeckel and P. J. Evans, Jr. December 1951. 15p. photos., diagrs. (NACA RM E51J08)

EXPERIMENTAL INVESTIGATION OF A TWO-DIMENSIONAL SPLIT-WING RAM-JET INLET AT MACH NUMBER OF 3.85. James F. Connors and Richard R. Woollett. August 1952. 28p. diagrs., photos. (NACA RM E52F04)

INFLUENCE OF A CANARD-TYPE CONTROL SURFACE ON THE INTERNAL AND EXTERNAL PERFORMANCE CHARACTERISTICS OF NACELLE-MOUNTED SUPERSONIC DIFFUSERS (CONICAL CENTERBODY) AT A REARWARD BODY STATION FOR A MACH NUMBER OF 2.0. L. J. Obery and H. S. Krasnow. August 1952. 24p. diagrs. (NACA RM E52F16)

PERFORMANCE OF A NORMAL-SHOCK SCOOP INLET WITH BOUNDARY-LAYER CONTROL. Alson C. Frazer and Warren E. Anderson. June 1953. 31p. diagrs., photos. (NACA RM A53D29)

PERFORMANCE COMPARISON OF THREE CANARD-TYPE RAM-JET MISSILE CONFIGURATIONS AT MACH NUMBERS FROM 1.5 TO 2.0. Evan A. Fradenburgh and Emil J. Kremzier. August 1953. 31p. diagrs., tabs. (NACA RM E53F11)

INTERFEROMETRIC OBSERVATION OF FLOW ABOUT AN ISENTROPIC (REVERSE PRANDTL-MEYER STREAMLINE) COMPRESSION WEDGE AT MACH 3.0. James F. Connors, Richard R. Woollett, and Robert E. Blue. March 1955. 12p. diagrs., photos. (NACA RM E55A28)

A THEORY FOR STABILITY AND BUZZ PULSATION AMPLITUDE IN RAM JETS AND AN EXPERIMENTAL INVESTIGATION INCLUDING SCALE EFFECTS. Robert L. Trimpi. 1956. ii, 24p. diagrs., photos., tabs. (NACA Rept. 1265. Supersedes RM L53G28)

AN ANALYSIS OF BUZZING IN SUPERSONIC RAM JETS BY A MODIFIED ONE-DIMENSIONAL NONSTATIONARY WAVE THEORY. Robert L. Trimpi. July 1956. 72p. diagrs., photos. (NACA TN 3695. Supersedes RM L52A18)

CHARACTERISTICS OF FOUR NOSE INLETS AS MEASURED AT MACH NUMBERS BETWEEN 1.4 AND 2.0. George B. Brajnikoff and Arthur W. Rogers. August 1956. 48p. diagrs., photos. (NACA TN 3724. Supersedes RM A51C12)

THE USE OF PERFORATED INLETS FOR EFFICIENT SUPERSONIC DIFFUSION. John C. Evvard and John W. Blakey. September 1956. 35p. diagrs., photo. (NACA TN 3767. Supersedes RM E51B10)

EFFECT OF AMBIENT-TEMPERATURE VARIATION ON THE MATCHING REQUIREMENTS OF INLET-ENGINE COMBINATIONS AT SUPERSONIC SPEEDS. Eugene Perchonok and Donald P. Hearth. January 1957. 16p. diagrs. (NACA TN 3834)

ANALYTICAL INVESTIGATION OF THE EFFECT OF WATER INJECTION ON SUPERSONIC TURBOJET-ENGINE - INLET MATCHING AND THRUST AUGMENTATION. Andrew Beke. January 1957. 25p. diagrs. (NACA TN 3922)

(1.4.2.2) NOZZLES

EFFECTS OF CERTAIN FLOW NONUNIFORMITIES ON LIFT, DRAG, AND PITCHING MOMENT FOR A TRANSONIC-AIRPLANE MODEL INVESTIGATED AT A MACH NUMBER OF 1.2 IN A NOZZLE OF CIRCULAR CROSS SECTION. Virgil S. Ritchie. August 31, 1949. 12p. diagrs., photo. (NACA RM L9E20a)

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF HIGH-PRESSURE TAILPIPE LENGTH ON THE PERFORMANCE OF SOLID-PROPELLANT MOTORS FOR ROCKET-POWERED AIRCRAFT. Charles J. Rodriguez. August 1952. 37p. diagrs., tabs. (NACA RM L52E12a)

FLIGHT MEASUREMENTS OF PRESSURES ON BASE AND REAR PART OF FUSELAGE OF THE BELL X-1 RESEARCH AIRPLANE AT TRANSONIC SPEEDS, INCLUDING POWER EFFECTS. Ronald J. Knapp and Wallace E. Johnson. January 1953. 31p. diagrs., photos. (NACA RM L52L01)

A METHOD OF MEASURING JET THRUST OF TURBOJET ENGINES IN FLIGHT INSTALLATIONS. Joseph N. Sivo and David B. Fenn. January 1954. 19p. diagrs., photo. (NACA RM E53J15)

EFFECT OF PROPERTIES OF PRIMARY FLUID ON PERFORMANCE OF CYLINDRICAL SHROUD EJECTORS. Fred D. Kochendorfer. March 1954. 32p. diagrs. (NACA RM E53L24a)

NOTE ON PERFORMANCE OF AIRCRAFT EJECTOR NOZZLES AT HIGH SECONDARY FLOWS. Fred D. Kochendorfer. August 1954. 20p. diagrs. (NACA RM E54F17a)

AERODYNAMIC INVESTIGATION OF A PARABOLIC BODY OF REVOLUTION AT MACH NUMBER OF 1.92 AND SOME EFFECTS OF AN ANNULAR SUPERSONIC JET EXHAUSTING FROM THE BASE. Eugene S. Love. September 1956. 62p. diagrs., photos., tab. (NACA TN 3709. Supersedes RM L9K09)

NEAR NOISE FIELD OF A JET-ENGINE EXHAUST. I - SOUND PRESSURES. Walton L. Howes and Harold R. Mull. October 1956. 51p. diagrs., photos. (NACA TN 3763)

SURVEY OF THE ACOUSTIC NEAR FIELD OF THREE NOZZLES AT A PRESSURE RATIO OF 30. Harold R. Mull and John C. Erickson, Jr. April 1957. 32p. diagrs., photos. (NACA TN 3978)

(1.4.2.3) PIPES

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF HIGH-PRESSURE TAILPIPE LENGTH ON THE PERFORMANCE OF SOLID-PROPELLANT MOTORS FOR ROCKET-POWERED AIRCRAFT. Charles J. Rodriguez. August 1952. 37p. diagrs., tabs. (NACA RM L52E12a)

ASPECTS OF INTERNAL-FLOW-SYSTEM DESIGN FOR HELICOPTER PROPULSIVE UNITS. John R. Henry. September 1954. 24p. diagrs. (NACA RM L54F29)

ANALYSIS OF LAMINAR INCOMPRESSIBLE FLOW IN SEMIPOROUS CHANNELS. Patrick L. Donoughe. August 1956. 25p. diagrs., tabs. (NACA TN 3759)

CHARTS FOR THE ANALYSIS OF FLOW IN A WHIRLING DUCT. Robert A. Makofski. May 1957. 21p. diagrs. (NACA TN 3950)

(1.4.2.4) BENDS

ASPECTS OF INTERNAL-FLOW-SYSTEM DESIGN FOR HELICOPTER PROPULSIVE UNITS. John R. Henry. September 1954. 24p. diagrs. (NACA RM L54F29)

IMPINGEMENT OF DROPLETS IN 60° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Paul G. Saper, and Charles F. Kadow. October 1956. 54p. diagrs., tabs. (NACA TN 3770)

(1.4.3) EXITS

NOTE ON SOME OBSERVED EFFECTS OF ROCKET-MOTOR OPERATION ON THE BASE PRESSURES OF BODIES IN FREE FLIGHT. Paul E. Purser, Joseph G. Thibodaux, and H. Herbert Jackson. November 16, 1950. 28p. diagrs., tabs. (NACA RM L50I18)

JET EFFECTS ON PRESSURES AND DRAGS OF BODIES. Warren Gillespie, Jr. November 1951. 12p. diagrs. (NACA RM L51J29)

EXPERIMENTAL INVESTIGATION OF EFFECT OF JET EXIT CONFIGURATION ON THRUST AND DRAG. Edmund E. Callaghan and Willard D. Coles. December 1951. 18p. diagrs., photos. (NACA RM E51J22)

EFFECT OF PROPERTIES OF PRIMARY FLUID ON PERFORMANCE OF CYLINDRICAL SHROUD EJECTORS. Fred D. Kochendorfer. March 1954. 32p. diagrs. (NACA RM E53L24a)

INVESTIGATION OF THE JET EFFECTS ON A FLAT SURFACE DOWNSTREAM OF THE EXIT OF A SIMULATED TURBOJET NACELLE AT A FREE-STREAM MACH NUMBER OF 2.02. Walter E. Bressette. June 1954. 38p. diagrs., photos., tab. (NACA RM L54E05a)

NOTE ON PERFORMANCE OF AIRCRAFT EJECTOR NOZZLES AT HIGH SECONDARY FLOWS. Fred D. Kochendorfer. August 1954. 20p. diagrs. (NACA RM E54F17a)

STATIC INVESTIGATION OF SEVERAL JET DEFLECTORS FOR LONGITUDINAL CONTROL OF AN AIRCRAFT. Alfred S. Valerino. June 1955. 19p. diagrs., photos. (NACA RM E55D04)

AN INVESTIGATION OF JET EFFECTS ON ADJACENT SURFACES. Walter E. Bressette and Maxime A. Faget. June 1955. 13p. diagrs. (NACA RM L55E06)

AN EXPERIMENTAL INVESTIGATION OF STING-SUPPORT EFFECTS ON DRAG AND A COMPARISON WITH JET EFFECTS AT TRANSONIC SPEEDS. Maurice S. Cahn. September 1956. 67p. diagrs., tabs. (NACA RM L56F18a)

PERFORMANCE CHARACTERISTICS OF RING-CASCADE-TYPE THRUST REVERSERS. Jack G. McArdle. November 1956. 53p. diagrs., photos., tab. (NACA TN 3838)

SPREADING CHARACTERISTICS OF A JET EXPANDING FROM CHOKED NOZZLES AT MACH 1.91. Morris D. Rousso and L. Eugene Baughman. December 1956. 27p. diagrs., photos. (NACA TN 3836. Supersedes RM E51L19)

WIND-TUNNEL TECHNIQUE FOR SIMULTANEOUS SIMULATION OF EXTERNAL FLOW FIELD ABOUT NACELLE INLET AND EXIT AIRSTREAMS AT SUPERSONIC SPEEDS. Gerald W. Englert and Roger W. Luidens. January 1957. 25p. diagrs. (NACA TN 3881)

FULL-SCALE INVESTIGATION OF SEVERAL JET-ENGINE NOISE-REDUCTION NOZZLES. Willard D. Coles and Edmund E. Callaghan. April 1957. 45p. diagrs., photos., tabs. (NACA TN 3974)

(1.4.4)
JET PUMPS AND THRUST AUGMENTORS

NOTE ON SOME OBSERVED EFFECTS OF ROCKET-MOTOR OPERATION ON THE BASE PRESSURES OF BODIES IN FREE FLIGHT. Paul E. Purser, Joseph G. Thibodaux, and H. Herbert Jackson. November 16, 1950. 28p. diagrs., tabs. (NACA RM L50I18)

PRELIMINARY INVESTIGATION OF COOLING-AIR EJECTOR PERFORMANCE AT PRESSURE RATIOS FROM 1 TO 10. C. W. Ellis, D. P. Hollister, and A. F. Sargent, Jr. October 1951. 21p. diagrs. (NACA RM E51H21)

EXPERIMENTAL INVESTIGATION OF EFFECT OF JET EXIT CONFIGURATION ON THRUST AND DRAG. Edmund E. Callaghan and Willard D. Coles. December 1951. 18p. diagrs., photos. (NACA RM E51J22)

FLIGHT MEASUREMENTS OF PRESSURES ON BASE AND REAR PART OF FUSELAGE OF THE BELL X-1 RESEARCH AIRPLANE AT TRANSONIC SPEEDS, INCLUDING POWER EFFECTS. Ronald J. Knapp and Wallace E. Johnson. January 1953. 31p. diagrs., photos. (NACA RM L52L01)

EFFECT OF PROPERTIES OF PRIMARY FLUID ON PERFORMANCE OF CYLINDRICAL SHROUD EJECTORS. Fred D. Kochendorfer. March 1954. 32p. diagrs. (NACA RM E53L24a)

NOTE ON PERFORMANCE OF AIRCRAFT EJECTOR NOZZLES AT HIGH SECONDARY FLOWS. Fred D. Kochendorfer. August 1954. 20p. diagrs. (NACA RM E54F17a)

EXPLORATORY STUDY OF GROUND PROXIMITY EFFECTS ON THRUST OF ANNULAR AND CIRCULAR NOZZLES. Uwe H. von Glahn. April 1957. 48p. diagrs., photos. (NACA TN 3982)

(1.4.5)
CASCADES

NACA 65-SERIES COMPRESSOR ROTOR PERFORMANCE WITH VARYING ANNULUS-AREA RATIO, SOLIDITY, BLADE ANGLE, AND REYNOLDS NUMBER AND COMPARISON WITH CASCADE RESULTS. Wallace M. Schulze, John R. Erwin, and George C. Ashby, Jr. February 1953. 62p. diagrs., photos., tab. (NACA RM L52L17)

COMPARISON OF LOW-SPEED ROTOR AND CASCADE PERFORMANCE FOR MEDIUM-CAMBER NACA 65-(C_{l_o} A_{10})10 COMPRESSOR-BLADE SECTIONS OVER A WIDE RANGE OF ROTOR BLADE-SETTING ANGLES AT SOLIDITIES OF 1.0 AND 0.5. George C. Ashby, Jr. December 1954. 40p. diagrs., photo. (NACA RM L54I13)

DISTRIBUTION OF LOSSES BEHIND A COMPRESSOR ROTOR AS MEASURED BY A ROTATING RAKE. William R. Godwin. January 1956. 66p. diagrs., photo. (NACA RM L55F29)

LOW-SPEED WAKE CHARACTERISTICS OF TWO-DIMENSIONAL CASCADE AND ISOLATED AIRFOIL SECTIONS. Seymour Lieblein and William H. Roudebush. October 1956. 49p. diagrs., tabs. (NACA TN 3771)

PERFORMANCE CHARACTERISTICS OF RING-CASCADE-TYPE THRUST REVERSERS. Jack G. McArdle. November 1956. 53p. diagrs., photos., tab. (NACA TN 3838)

COMPARISON OF NACA 65-SERIES COMPRESSOR-BLADE PRESSURE DISTRIBUTIONS AND PERFORMANCE IN A ROTOR AND IN CASCADE. Willard R. Westphal and William R. Godwin. March 1957. 53p. diagrs., photos. (NACA TN 3806. Supersedes RM L51H20)

(1.4.5.1)
THEORY

THEORETICAL ANALYSIS OF INCOMPRESSIBLE FLOW THROUGH A RADIAL-INLET CENTRIFUGAL IMPELLER AT VARIOUS WEIGHT FLOWS. James J. Kramer, Vasily D. Prian, and Chung-Hua Wu. 1956. ii, 16p. diagrs., tab. (NACA Rept. 1279. Supersedes TN 3448; TN 3449)

(1.4.5.2)
EXPERIMENT

LOW-SPEED CASCADE INVESTIGATION OF LOADED LEADING-EDGE COMPRESSOR BLADES. James C. Emery. January 1956. 76p. diagrs., photo., tabs. (NACA RM L55J05)

INVESTIGATION OF A RELATED SERIES OF TURBINE-BLADE PROFILES IN CASCADE. James C. Dunavant and John R. Erwin. October 1956. 100p. diagrs. (NACA TN 3802. Supersedes RM L53G15)

TWO-DIMENSIONAL LOW-SPEED CASCADE INVESTIGATION OF NACA COMPRESSOR BLADE SECTIONS HAVING A SYSTEMATIC VARIATION IN MEAN-LINE LOADING. John R. Erwin, Melvyn Savage, and James C. Emery. November 1956. 129p. diagrs., tabs. (NACA TN 3817. Supersedes RM L53I30b)

SUMMARY OF 65-SERIES COMPRESSOR-BLADE LOW-SPEED CASCADE DATA BY USE OF THE CARPET-PLOTTING TECHNIQUE. A. Richard Felix. February 1957. 18p. diagrs. (NACA TN 3913. Supersedes RM L54H18a)

SYSTEMATIC TWO-DIMENSIONAL CASCADE TESTS OF NACA 65-SERIES COMPRESSOR BLADES AT LOW SPEEDS. L. Joseph Herrig, James C. Emery, and John R. Erwin. February 1957. 223p. diagrs., photo., tabs. (NACA TN 3916. Supersedes RM L51G31)

A COMPARISON OF TYPICAL NATIONAL GAS TURBINE ESTABLISHMENT AND NACA AXIAL-FLOW COMPRESSOR BLADE SECTIONS IN CASCADE AT LOW SPEED. A. Richard Felix and James C. Emery. March 1957. 46p. diagrs., photo., tabs. (NACA TN 3937. Supersedes RM L53B26a)

CASCADE INVESTIGATION OF A RELATED SERIES OF 6-PERCENT-THICK GUIDE-VANE PROFILES AND DESIGN CHARTS. James C. Dunavant. May 1957. 48p. diagrs., tabs. (NACA TN 3959. Supersedes RM L54I02)

(1.4.6)
FANS

COMPARISON OF LOW-SPEED ROTOR AND CASCADE PERFORMANCE FOR MEDIUM-CAMBER NACA 65-(C_{i_o} A_{10})10 COMPRESSOR-

DISTRIBUTION OF LOSSES BEHIND A COMPRESSOR ROTOR AS MEASURED BY A ROTATING RAKE. William R. Godwin. January 1956. 66p. diagrs., photo. (NACA RM L55F29)

COMPARISON OF NACA 65-SERIES COMPRESSOR-BLADE PRESSURE DISTRIBUTIONS AND PERFORMANCE IN A ROTOR AND IN CASCADE. Willard R. Westphal and William R. Godwin. March 1957. 53p. diagrs., photos. (NACA TN 3806. Supersedes RM L51H20)

(1.4.7)
BOUNDARY LAYER

THE INFLUENCE OF VORTEX GENERATORS ON THE PERFORMANCE OF A SHORT 1.9:1 STRAIGHT-WALL ANNULAR DIFFUSER WITH A WHIRLING INLET FLOW. Charles C. Wood and James T. Higginbotham. February 1953. 38p. diagrs., photo., tab. (NACA RM L52L01a)

AN EXPERIMENTAL STUDY OF FIVE ANNULAR AIR INLET CONFIGURATIONS AT SUBSONIC AND TRANSONIC SPEEDS. Robert E. Pendley, Joseph R. Millilo, Frank F. Fleming, and Carroll R. Bryan. August 1953. 86p. diagrs., tabs. (NACA RM L53F18a)

PERFORMANCE CHARACTERISTICS OF A 24° STRAIGHT-OUTER-WALL ANNULAR-DIFFUSER-TAILPIPE COMBINATION UTILIZING RECTANGULAR VORTEX GENERATORS FOR FLOW CONTROL. Charles C. Wood and James T. Higginbotham. October 1953. 33p. diagrs., tabs. (NACA RM L53H17a)

EFFECTS OF DIFFUSER AND CENTER-BODY LENGTH ON PERFORMANCE OF ANNULAR DIFFUSERS WITH CONSTANT-DIAMETER OUTER WALLS AND WITH VORTEX-GENERATOR FLOW CONTROLS. Charles C. Wood and James T. Higginbotham. September 1954. 39p. diagrs., photo., tab. (NACA RM L54G21)

SIMILAR SOLUTIONS FOR THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER AND PRESSURE GRADIENT. Clarence B. Cohen and Eli Reshotko. 1956. ii, 38p. diagrs., tabs. (NACA Rept. 1293. Supersedes TN 3325)

THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER AND ARBITRARY PRESSURE GRADIENT. Clarence B. Cohen and Eli Reshotko. 1956. ii, 16p. diagrs., tabs. (NACA Rept. 1294. Supersedes TN 3326)

DISTRIBUTION OF LOSSES BEHIND A COMPRESSOR ROTOR AS MEASURED BY A ROTATING RAKE. William R. Godwin. January 1956. 66p. diagrs., photo. (NACA RM L55F29)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. I - SIMILARITY WITH RESPECT TO STATIONARY RECTANGULAR COORDINATES. Arthur G. Hansen and Howard Z. Herzig. October 1956. 30p. tab. (NACA TN 3768)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. II - SIMILARITY WITH RESPECT TO STATIONARY POLAR COORDINATES. Howard Z. Herzig and Arthur G. Hansen. November 1956. 16p. tab. (NACA TN 3832)

ANALYSIS OF PARTICLE MOTIONS FOR A CLASS OF THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. Arthur G. Hansen and Howard Z. Herzig. November 1956. 22p. diagrs., tabs. (NACA TN 3840)

ON POSSIBLE SIMILARITY SOLUTIONS FOR THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. III - SIMILARITY WITH RESPECT TO STATIONARY POLAR COORDINATES FOR SMALL ANGLE VARIATION. Howard Z. Herzig and Arthur G. Hansen. January 1957. 36p. diagrs., photos., tab. (NACA TN 3890)

ON FLOW OF ELECTRICALLY CONDUCTING FLUIDS OVER A FLAT PLATE IN THE PRESENCE OF A TRANSVERSE MAGNETIC FIELD. Vernon J. Rossow. May 1957. 54p. tabs. (NACA TN 3971)

(1.4.7.1) CHARACTERISTICS

FLOW SEPARATION FROM RODS AHEAD OF BLUNT NOSES AT MACH NUMBER 2.72. Jim J. Jones. July 1952. 18p. diagrs., photos. (NACA RM L52E05a)

INTERFEROMETRIC OBSERVATION OF FLOW ABOUT AN ISENTROPIC (REVERSE PRANDTL-MEYER STREAMLINE) COMPRESSION WEDGE AT MACH 3.0. James F. Connors, Richard R. Woollett, and Robert E. Blue. March 1955. 12p. diagrs., photos. (NACA RM E55A28)

EXPERIMENTAL INVESTIGATION OF TURBINE STATOR-BLADE-OUTLET BOUNDARY-LAYER CHARACTERISTICS AND A COMPARISON WITH THEORETICAL RESULTS. Warren J. Whitney, Warner L. Stewart, and James W. Miser. March 1956. 24p. diagrs. (NACA RM E55K24)

EXPLORATORY INVESTIGATION OF THE USE OF AREA SUCTION TO ELIMINATE AIR-FLOW SEPARATION IN DIFFUSERS HAVING LARGE EXPANSION ANGLES. Curt A. Holzhauser and Leo P. Hall. October 1956. 18p. diagrs (NACA TN 3793)

ANALYSIS OF PARTICLE MOTIONS FOR A CLASS OF THREE-DIMENSIONAL INCOMPRESSIBLE LAMINAR BOUNDARY LAYERS. Arthur G. Hansen and Howard Z. Herzig. November 1956. 22p. diagrs., tabs. (NACA TN 3840)

INVESTIGATION OF SEMIVANELESS TURBINE STATOR DESIGNED TO PRODUCE AXIALLY SYMMETRICAL FREE-VORTEX FLOW. Harold E. Rohlik and William T. Wintucky. April 1957. 39p. diagrs., photos., tabs. (NACA TN 3980)

(1.4.7.2) CONTROL

PRELIMINARY INVESTIGATION OF A SUPERSONIC SCOOP INLET DERIVED FROM A CONICAL-SPIKE NOSE INLET. Charles E. Witliff and Robert W. Byrne. September 1951. 25p. diagrs., photos. (NACA RM L51G11)

AN INVESTIGATION AT TRANSONIC SPEEDS OF THE AERODYNAMIC CHARACTERISTICS OF AN AIR INLET INSTALLED IN THE ROOT OF A 45° SWEPT-BACK WING. Robert R. Howell and Arvid L. Keith, Jr. October 1952. 47p. diagrs., photos., tabs. (NACA RM L52H08a)

PERFORMANCE OF A NORMAL-SHOCK SCOOP INLET WITH BOUNDARY-LAYER CONTROL. Alson C. Frazer and Warren E. Anderson. June 1953. 31p. diagrs., photos. (NACA RM A53D29)

PERFORMANCE COMPARISON OF THREE CANARD-TYPE RAM-JET MISSILE CONFIGURATIONS AT MACH NUMBERS FROM 1.5 TO 2.0. Evan A. Fradenburgh and Emil J. Kremzier. August 1953. 31p. diagrs., tabs. (NACA RM E53F11)

INVESTIGATION OF TWO SHORT ANNULAR DIFFUSER CONFIGURATIONS UTILIZING SUCTION AND INJECTION AS A MEANS OF BOUNDARY-LAYER CONTROL. Stafford W. Wilbur and James T. Higginbotham. January 1955. 43p. diagrs. (NACA RM L54K18)

EXPLORATORY INVESTIGATION OF THE USE OF AREA SUCTION TO ELIMINATE AIR-FLOW SEPARATION IN DIFFUSERS HAVING LARGE EXPANSION ANGLES. Curt A. Holzhauser and Leo P. Hall. October 1956. 18p. diagrs. (NACA TN 3793)

INVESTIGATION OF SEMIVANELESS TURBINE STATOR DESIGNED TO PRODUCE AXIALLY SYMMETRICAL FREE-VORTEX FLOW. Harold E. Rohlik and William T. Wintucky. April 1957. 39p. diagrs., photos., tabs. (NACA TN 3980)

INVESTIGATION OF A SHORT-ANNULAR-DIFFUSER CONFIGURATION UTILIZING SUCTION AS A MEANS OF BOUNDARY-LAYER CONTROL. Stafford W. Wilbur and James T. Higginbotham. June 1957. 33p. diagrs., photo. (NACA TN 3996)

(1.5)
Propellers

(1.5.1)
THEORY

A METHOD FOR CALCULATION OF FREE-SPACE SOUND PRESSURES NEAR A PROPELLER IN FLIGHT INCLUDING CONSIDERATIONS OF THE CHORDWISE BLADE LOADING. Charles E. Watkins and Barbara J. Durling. November 1956. 68p. diagrs., tabs. (NACA TN 3809)

(1.5.2)
DESIGN VARIABLES

INVESTIGATION OF NACA 4-(0)(03)-045 AND NACA 4-(0)(08)-045 TWO-BLADE PROPELLERS AT FORWARD MACH NUMBERS TO 0.925. James B. Delano and Melvin M. Carmel. January 18, 1950. 22p. diagrs., photo. (NACA RM L9L06a)

(1. 5. 2. 1)
BLADE SECTIONS

INVESTIGATION OF THE NACA 4-(0)(03)-045 TWO-BLADE PROPELLER AT FORWARD MACH NUMBERS TO 0.925. Melvin M. Carmel and Joseph R. Mililo. March 14, 1950. 29p. diagrs., photo., tab. (NACA RM L50A31a)

THE EFFECT OF THICKNESS RATIO ON SECTION THRUST DISTRIBUTION AS DETERMINED FROM A STUDY OF WAKE SURVEYS OF THE NACA 4-(0)(03)-045 AND 4-(0)(08)-045 TWO-BLADE PROPELLERS UP TO FORWARD MACH NUMBERS OF 0.925. Daniel E. Harrison and Joseph R. Mililo. April 5, 1951. 62p. diagrs., photo., tabs. (NACA RM L51B05)

INVESTIGATION OF THE NACA 1.167-(0)(03)-058 AND NACA 1.167-(0)(05)-058 THREE-BLADE PROPELLERS AT FORWARD MACH NUMBERS TO 0.92 INCLUDING EFFECTS OF THRUST-AXIS INCLINATION. Fred A. Demele and William R. Otey. August 1953. 61p. diagrs., photos., tabs (NACA RM A53F16)

(1. 5. 2. 2)
SOLIDITY

THE PRESSURE-RECOVERY AND PROPELLER-FORCE CHARACTERISTICS OF A PROPELLER-SPINNER-COWLING COMBINATION EMPLOYING NACA 4-(5)(05)-037 SIX- AND EIGHT-BLADE DUAL-ROTATION PROPELLERS WITH AN NACA 1-SERIES D-TYPE COWL. Robert I. Sammonds and Robert M. Reynolds. January 1955. 98p. diagrs., photos., tabs. (NACA RM A54J22)

STATIC-THRUST CHARACTERISTICS OF THE NACA 8.75-(5) (05)-037 DUAL-ROTATION PROPELLER. Harry T. Norton, Jr. July 1956. 16p. diagrs., photo. (NACA RM L56C27)

(1. 5. 2. 4)
BLADE PLAN FORMS

INVESTIGATION OF THE NACA 4-(0)(03)-045 TWO-BLADE PROPELLER AT FORWARD MACH NUMBERS TO 0.925. Melvin M. Carmel and Joseph R. Mililo. March 14, 1950. 29p. diagrs., photo., tab. (NACA RM L50A31a)

(1. 5. 2. 5)
MACH NUMBER EFFECTS

INVESTIGATION OF NACA 4-(0)(03)-045 AND NACA 4-(0)(08)-045 TWO-BLADE PROPELLERS AT FORWARD MACH NUMBERS TO 0.925. James B. Delano and Melvin M. Carmel. January 18, 1950. 22p. diagrs., photo. (NACA RM L9L06a)

ANALYTICAL INVESTIGATION OF PROPELLER EFFICIENCY AT HIGH-SUBSONIC FLIGHT SPEEDS NEAR MACH NUMBER UNITY. Jean Gilman, Jr., John L. Crigler, and F. Edward McLean. February 13, 1950. 31p. diagrs. (NACA RM L9L05a)

INVESTIGATION OF THE NACA 4-(0)(03)-045 TWO-BLADE PROPELLER AT FORWARD MACH NUMBERS TO 0.925. Melvin M. Carmel and Joseph R. Mililo. March 14, 1950. 29p. diagrs., photo., tab. (NACA RM L50A31a)

THE EFFECT OF THICKNESS RATIO ON SECTION THRUST DISTRIBUTION AS DETERMINED FROM A STUDY OF WAKE SURVEYS OF THE NACA 4-(0)(03)-045 AND 4-(0)(08)-045 TWO-BLADE PROPELLERS UP TO FORWARD MACH NUMBERS OF 0.925. Daniel E. Harrison and Joseph R. Mililo. April 5, 1951. 62p. diagrs., photo., tabs. (NACA RM L51B05)

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EFFECT OF FLIGHT SPEED ON DYNAMICS OF A TURBOPROP ENGINE. S. Nakanishi, R. T. Craig, and D. B. Wile. April 1955. 40p. diagrs., photo., tabs. (NACA RM E55A05)

STATIC-THRUST CHARACTERISTICS OF THE NACA 8.75-(5) (05)-037 DUAL-ROTATION PROPELLER. Harry T. Norton, Jr. July 1956. 16p. diagrs., photo. (NACA RM L56C27)

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(1. 5. 2. 7)
DUAL ROTATION

THE PRESSURE-RECOVERY AND PROPELLER-FORCE CHARACTERISTICS OF A PROPELLER-SPINNER-COWLING COMBINATION EMPLOYING NACA 4-(5)(05)-037 SIX- AND EIGHT-BLADE DUAL-ROTATION PROPELLERS WITH AN NACA 1-SERIES D-TYPE COWL. Robert I. Sammonds and Robert M. Reynolds. January 1955. 98p. diagrs., photos., tabs. (NACA RM A54J22)

STATIC-THRUST CHARACTERISTICS OF THE NACA 8.75-(5) (05)-037 DUAL-ROTATION PROPELLER. Harry T. Norton, Jr. July 1956. 16p. diagrs., photo. (NACA RM L56C27)

(1. 5. 2. 8)
INTERFERENCE OF BODIES

THE PRESSURE-RECOVERY AND PROPELLER-FORCE CHARACTERISTICS OF A PROPELLER-SPINNER-COWLING COMBINATION EMPLOYING NACA 4-(5)(05)-037 SIX- AND EIGHT-BLADE DUAL-ROTATION PROPELLERS WITH AN NACA 1-SERIES D-TYPE COWL. Robert I. Sammonds and Robert M. Reynolds. January 1955. 98p. diagrs., photos., tabs. (NACA RM A54J22)

AN ANALYSIS OF ONCE-PER-REVOLUTION OSCILLATING AERODYNAMIC THRUST LOADS ON SINGLE-ROTATION PROPELLERS ON TRACTOR AIRPLANES AT ZERO YAW. Vernon L. Rogallo, Paul F. Yaggy, and John L. McCloud, III. 1956. ii, 30p. diagrs., photos. (NACA Rept. 1295. Supersedes TN 3395)

THE EFFECTS OF COMPRESSIBILITY ON THE UPWASH AT THE PROPELLER PLANES OF A FOUR-ENGINE TRACTOR AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10^{1}. Armando E. Lopez and Jerald K. Dickson. July 1956. 38p. diagrs., photos., tab. (NACA TN 3675. Supersedes RM A53A30a)

(1. 5. 2. 9)
PITCH AND YAW

INVESTIGATION OF THE NACA 1.167-(0)(03)-058 AND NACA 1.167-(0)(05)-058 THREE-BLADE PROPELLERS AT FORWARD MACH NUMBERS TO 0.92 INCLUDING EFFECTS OF THRUST-AXIS INCLINATION. Fred A. Demele and William R. Otey. August 1953. 61p. diagrs., photos., tabs. (NACA RM A53F16)

INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL WING-PROPELLER COMBINATION AND OF THE WING AND PROPELLER SEPARATELY AT ANGLES OF ATTACK UP TO 90° Richard E. Kuhn and John W. Draper. 1956. ii, 40p. diagrs., photos., tab. (NACA Rept. 1263. Supersedes TN 3304)

(1.5.3)
DESIGNATED TYPES

INVESTIGATION OF NACA 4-(0)(03)-045 AND NACA 4-(0)(08)-045 TWO-BLADE PROPELLERS AT FORWARD MACH NUMBERS TO 0.925. James B. Delano and Melvin M. Carmel. January 18. 1950. 22p. diagrs., photo. (NACA RM L9L06a)

INVESTIGATION OF THE NACA 4-(0)(03)-045 TWO-BLADE PROPELLER AT FORWARD MACH NUMBERS TO 0.925. Melvin M. Carmel and Joseph R. Milillo. March 14. 1950. 29p. diagrs., photo., tab. (NACA RM L50A31a)

THE EFFECT OF THICKNESS RATIO ON SECTION THRUST DISTRIBUTION AS DETERMINED FROM A STUDY OF WAKE SURVEYS OF THE NACA 4-(0)(03)-045 AND 4-(0)(08)-045 TWO-BLADE PROPELLERS UP TO FORWARD MACH NUMBERS OF 0.925. Daniel E. Harrison and Joseph R. Milillo. April 5, 1951. 62p. diagrs., photo., tabs. (NACA RM L51B05)

(1.5.4)
SLIPSTREAM

THE EFFECT OF THICKNESS RATIO ON SECTION THRUST DISTRIBUTION AS DETERMINED FROM A STUDY OF WAKE SURVEYS OF THE NACA 4-(0)(03)-045 AND 4-(0)(08)-045 TWO-BLADE PROPELLERS UP TO FORWARD MACH NUMBERS OF 0.925. Daniel E. Harrison and Joseph R. Milillo. April 5, 1951. 62p. diagrs., photo., tabs. (NACA RM L51B05)

INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL WING-PROPELLER COMBINATION AND OF THE WING AND PROPELLER SEPARATELY AT ANGLES OF ATTACK UP TO 90°. Richard E. Kuhn and John W. Draper. 1956. ii, 40p. diagrs., photos., tab. (NACA Rept. 1263. Supersedes TN 3304)

ANALYSIS OF WIND-TUNNEL TESTS TO A MACH NUMBER OF 0.90 OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10. George G. Edwards, Donald A. Buell, Fred A. Demele, and Fred B. Sutton. September 1956. 170p. diagrs., photos., tabs. (NACA TN 3790. Supersedes RM A54F14)

EXPLORATORY INVESTIGATION OF THE EFFECTIVENESS OF BIPLANE WINGS WITH LARGE-CHORD DOUBLE SLOTTED FLAPS IN REDIRECTING A PROPELLER SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Robert H. Kirby. October 1956. 22p. diagrs., tab. (NACA TN 3800)

INVESTIGATION OF THE EFFECTIVENESS OF BOUNDARY-LAYER CONTROL BY BLOWING OVER A COMBINATION OF SLIDING AND PLAIN FLAPS IN DEFLECTING A PROPELLER SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Kenneth P. Spreemann and Richard E. Kuhn. December 1956. 44p. diagrs., photo. (NACA TN 3904)

EFFECT OF PROPELLER LOCATION AND FLAP DEFLECTION ON THE AERODYNAMIC CHARACTERISTICS OF A WING-PROPELLER COMBINATION FOR ANGLES OF ATTACK FROM 0° TO 80°. William A. Newsom, Jr. January 1957. 45p. diagrs. (NACA TN 3917)

INVESTIGATION OF EFFECTIVENESS OF A WING EQUIPPED WITH A 50-PERCENT-CHORD SLIDING FLAP, A 30-PERCENT-CHORD SLOTTED FLAP, AND A 30-PERCENT-CHORD SLAT IN DEFLECTING PROPELLER SLIPSTREAMS DOWNWARD FOR VERTICAL TAKE-OFF. Richard E. Kuhn. January 1957. 39p. diagrs., photo., tab. (NACA TN 3919)

WIND-TUNNEL INVESTIGATION OF EFFECT OF PROPELLER SLIPSTREAMS ON AERODYNAMIC CHARACTERISTICS OF A WING EQUIPPED WITH A 50-PERCENT-CHORD SLIDING FLAP AND A 30-PERCENT-CHORD SLOTTED FLAP. Richard E. Kuhn and William C. Hayes, Jr. February 1957. 72p. diagrs., photo., tab. (NACA TN 3918)

(1.5.6)
OPERATING CONDITIONS

EFFECT OF FLIGHT SPEED ON DYNAMICS OF A TURBOPROP ENGINE. S. Nakanishi, R. T. Craig, and D. B. Wile. April 1955. 40p. diagrs., photo., tabs. (NACA RM E55A05)

AN ANALYSIS OF ONCE-PER-REVOLUTION OSCILLATING AERODYNAMIC THRUST LOADS ON SINGLE-ROTATION PROPELLERS ON TRACTOR AIRPLANES AT ZERO YAW. Vernon L. Rogallo, Paul F. Yaggy, and John L. McCloud, III. 1956. ii, 30p. diagrs., photos. (NACA Rept. 1295. Supersedes TN 3395)

STATIC-THRUST CHARACTERISTICS OF THE NACA 8.75-(5) (05)-037 DUAL-ROTATION PROPELLER. Harry T. Norton, Jr. July 1956. 16p. diagrs., photo. (NACA RM L56C27)

THE EFFECTS OF COMPRESSIBILITY ON THE UPWASH AT THE PROPELLER PLANES OF A FOUR-ENGINE TRACTOR AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10[1]. Armando E. Lopez and Jerald K. Dickson. July 1956. 38p. diagrs., photos., tab. (NACA TN 3675. Supersedes RM A53A30a)

(1.5.7)
PROPELLER - SPINNER - COWL COMBINATIONS

EFFECT OF ROTATION OF AN NACA 1-SERIES E-TYPE COWLING ON THE INTERNAL FLOW AND FORCE CHARACTERISTICS OF THE COWLING AT MACH NUMBERS UP TO 0.84 AND AT AN ANGLE OF ATTACK OF 0°. Robert I. Sammonds and Robert M. Reynolds. October 1954. 54p. diagrs., photos., tabs. (NACA RM A54G14)

THE PRESSURE-RECOVERY AND PROPELLER-FORCE CHARACTERISTICS OF A PROPELLER-SPINNER-COWLING COMBINATION EMPLOYING NACA 4-(5)(05)-037 SIX- AND EIGHT-BLADE DUAL-ROTATION PROPELLERS WITH AN NACA 1-SERIES D-TYPE COWL. Robert I. Sammonds and Robert M. Reynolds. January 1955. 98p. diagrs., photos., tabs. (NACA RM A54J22)

(1.6)
Rotating Wings

(1.6.1)
THEORY

CHARTS FOR ESTIMATING PERFORMANCE OF HIGH-PERFORMANCE HELICOPTERS. Alfred Gessow and Robert J. Tapscott. 1956. ii, 33p. diagrs. (NACA Rept. 1266. Supersedes TN 3323; TN 3482)

STATIC-THRUST MEASUREMENTS OF THE AERODYNAMIC LOADING ON A HELICOPTER ROTOR BLADE. John P. Rabbott, Jr. July 1956. 22p. diagrs., photos. (NACA TN 3688)

EQUATIONS AND PROCEDURES FOR NUMERICALLY CALCULATING THE AERODYNAMIC CHARACTERISTICS OF LIFTING ROTORS. Alfred Gessow. October 1956. 21p. diagr., tab. (NACA TN 3747)

A THEORETICAL ESTIMATE OF THE EFFECTS OF COMPRESSIBILITY ON THE PERFORMANCE OF A HELICOPTER ROTOR IN VARIOUS FLIGHT CONDITIONS. Alfred Gessow and Almer D. Crim. October 1956. 33p. diagrs. (NACA TN 3798)

DISTRIBUTION OF NORMAL COMPONENT OF INDUCED VELOCITY IN LATERAL PLANE OF A LIFTING ROTOR. Walter Castles, Jr., and Howard L. Durham, Jr., Georgia Institute of Technology. December 1956. 26p. diagrs., tabs. (NACA TN 3841)

APPROXIMATE SOLUTION FOR STREAMLINES ABOUT A LIFTING ROTOR HAVING UNIFORM LOADING AND OPERATING IN HOVERING OR LOW-SPEED VERTICAL-ASCENT FLIGHT CONDITIONS. Walter Castles, Jr., Georgia Institute of Technology. February 1957. 41p. diagrs., tabs. (NACA TN 3921)

LIFT AND MOMENT RESPONSES TO PENETRATION OF SHARP-EDGED TRAVELING GUSTS, WITH APPLICATION TO PENETRATION OF WEAK BLAST WAVES. Joseph A. Drischler and Franklin W. Diederich. May 1957. 85p. diagrs., tabs. (NACA TN 3956)

(1.6.2)
EXPERIMENTAL STUDIES

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF VARIOUS PARAMETERS INCLUDING TIP MACH NUMBER ON THE FLUTTER OF SOME MODEL HELICOPTER ROTOR BLADES. George W. Brooks and John E. Baker. June 1953. 68p. diagrs., photos., tabs. (NACA RM L53D24)

STATIC-THRUST MEASUREMENTS OF THE AERODYNAMIC LOADING ON A HELICOPTER ROTOR BLADE. John P. Rabbott, Jr. July 1956. 22p. diagrs., photos. (NACA TN 3688)

ANALYTICAL DETERMINATION OF THE NATURAL COUPLED FREQUENCIES AND MODE SHAPES AND THE RESPONSE TO OSCILLATING FORCING FUNCTIONS OF TANDEM HELICOPTERS. George W. Brooks and John C. Houbolt. December 1956. 45p. diagrs., tabs. (NACA TN 3849)

FLIGHT MEASUREMENTS OF THE VIBRATIONS ENCOUNTERED BY A TANDEM HELICOPTER AND A METHOD FOR MEASURING THE COUPLED RESPONSE IN FLIGHT. John E. Yeates, Jr. December 1956. 28p. diagrs., photo., tab. (NACA TN 3852)

DETERMINATION OF THE STRUCTURAL DAMPING COEFFICIENTS OF SIX FULL-SCALE HELICOPTER ROTOR BLADES OF DIFFERENT MATERIALS AND METHODS OF CONSTRUCTION. Frederick W. Gibson. December 1956. 19p. diagrs., tab. (NACA TN 3862)

INVESTIGATION OF VERTICAL DRAG AND PERIODIC AIRLOADS ACTING ON FLAT PANELS IN A ROTOR SLIPSTREAM. Robert A. Makofski and George F. Menkick. December 1956. 23p. diagrs., photo. (NACA TN 3900)

(1.6.2.1)
POWER-DRIVEN

EXPERIMENTAL INVESTIGATION ON THE LANGLEY HELICOPTER TEST TOWER OF COMPRESSIBILITY EFFECTS ON A ROTOR HAVING NACA 63_2-015 AIRFOIL SECTIONS. James P. Shivers and Paul J. Carpenter. December 1956. 28p. diagrs., photo. (NACA TN 3850)

(1.7) Aircraft

(1.7.1) AIRPLANES

CRASH INJURY. Gerard J. Pesman and A. Martin Eiband. November 1956. 36p. diagrs., photos. (NACA TN 3775)

(1.7.1.1) COMPONENTS IN COMBINATION

FLIGHT INVESTIGATION FROM HIGH SUBSONIC TO SUPERSONIC SPEEDS TO DETERMINE THE ZERO-LIFT DRAG OF A TRANSONIC RESEARCH VEHICLE HAVING WINGS OF 45° SWEEPBACK, ASPECT RATIO 4, TAPER RATIO 0.6, AND NACA 65A006 AIRFOIL SECTIONS. Ellis Katz. October 27, 1949. 16p. diagrs., photos., tab. (NACA RM L9H30)

BUFFETING INFORMATION OBTAINED FROM ROCKET-PROPELLED AIRPLANE MODELS HAVING THIN UNSWEPT WINGS. Clarence L. Gillis. October 18, 1950. 15p. diagrs., photos. (NACA RM L50H22a)

COMPARISON OF LARGE-SCALE FLIGHT MEASUREMENTS OF ZERO-LIFT DRAG AT MACH NUMBERS FROM 0.9 TO 1.7 OF TWO WING-BODY COMBINATIONS HAVING SIMILAR 60° TRIANGULAR WINGS WITH NACA 65A003 SECTIONS. Eugene D. Schult. October 25, 1950. 15p. diagrs., photo., tab. (NACA RM L50I22)

INVESTIGATION OF THE DYNAMIC LONGITUDINAL STABILITY OF TWO EQUAL-SIZE MODELS COUPLED IN TANDEM WITH A SINGLE JOINT. PRELIMINARY MODEL FLIGHT TESTS. Robert E. Shanks and David Grana. November 13, 1950. 14p. diagrs., tab. (NACA RM L50H17)

DYNAMIC LONGITUDINAL STABILITY AND CONTROL OF TANDEM-COUPLED BOMBER-FIGHTER AIRPLANE MODELS WITH RIGID AND PITCH-FREE COUPLINGS. David C. Grana and Donald E. Hewes. January 22, 1951. 12p. diagrs., tabs. (NACA RM L50L14)

DATA PRESENTATION OF FORCE CHARACTERISTICS OF SEVERAL ENGINE-STRUT-BODY CONFIGURATIONS AT MACH NUMBERS OF 1.8 AND 2.0. Robert T. Madden and Emil J. Kremzier. August 1951. 32p. diagrs. (NACA RM E51E29)

AERODYNAMIC INTERFERENCE EFFECTS ON NORMAL AND AXIAL FORCE COEFFICIENTS OF SEVERAL ENGINE-STRUT-BODY CONFIGURATIONS AT MACH NUMBERS OF 1.8 AND 2.0. Emil J. Kremzier and Murray Dryer. April 1952. 35p. diagrs., tab. (NACA RM E52B21)

ROCKET-MODEL INVESTIGATION OF LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING A 60° DELTA WING AND A HIGH UNSWEPT HORIZONTAL TAIL. Robert F. Peck and Jesse L. Mitchell. January 1953. 28p. diagrs., photo. (NACA RM L52K04a)

EFFECTS OF WING ELASTICITY ON THE AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WINGS AS OBTAINED FROM FREE-FLIGHT ROCKET-MODEL TESTS AT TRANSONIC SPEEDS. A. James Vitale. January 1953. 49p. diagrs., photos., tab. (NACA RM L52L30)

EFFECT OF VERTICAL POSITION OF THE WING ON THE AERODYNAMIC CHARACTERISTICS OF THREE WING-BODY COMBINATIONS. John C. Heitmeyer. February 1953. 56p. diagrs., photo., tabs. (NACA RM A52L15a)

STATIC LATERAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 47.7° SWEPTBACK WING OF ASPECT RATIO 6 AND THE CONTRIBUTION OF VARIOUS MODEL COMPONENTS AT A REYNOLDS NUMBER OF 4.45×10^6. Roland F. Griner. September 1953. 83p. diagrs., photos., tabs. (NACA RM L53G09)

LONGITUDINAL STABILITY AND TRIM OF TWO ROCKET-PROPELLED AIRPLANE MODELS HAVING 45° SWEPTBACK WINGS AND TAILS WITH THE HORIZONTAL TAIL MOUNTED IN TWO POSITIONS. James H. Parks and Alan B. Kehlet. December 1953. 26p. diagrs., photos. (NACA RM L53J12a)

EXPERIMENTAL EVIDENCE OF SUSTAINED COUPLED LONGITUDINAL AND LATERAL OSCILLATIONS FROM A ROCKET-PROPELLED MODEL OF A 35° SWEPT WING AIRPLANE CONFIGURATION. James H. Parks. May 1954. 28p. diagrs., photos., tab. (NACA RM L54D15)

AN INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE PRESSURE DISTRIBUTIONS ON A 45° SWEPTBACK VERTICAL TAIL IN SIDESLIP WITH AND WITHOUT A 45° SWEPTBACK HORIZONTAL TAIL LOCATED ON THE FUSELAGE CENTER LINE. Harleth G. Wiley and William C. Moseley, Jr. November 1954. 81p. diagrs., photos., 7 tabs. (NACA RM L54H23)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE PRESSURE DISTRIBUTIONS ON A 45° SWEPTBACK VERTICAL TAIL IN SIDESLIP WITH A 45° SWEPTBACK HORIZONTAL TAIL MOUNTED AT 50-PERCENT AND 100-PERCENT VERTICAL-TAIL SPAN. Harleth G. Wiley and William C. Moseley, Jr. November 1954. 89p. diagrs., photos., tabs. (NACA RM L54I08)

EFFECTS OF WING-MOUNTED TANK-TYPE STORES ON THE LOW-LIFT BUFFETING AND DRAG OF A SWEPT-WING AIRPLANE CONFIGURATION BETWEEN MACH NUMBERS OF 0.8 AND 1.3. Homer P. Mason. October 1955. 34p. diagrs., photos., tabs. (NACA RM L55D27)

THEORETICAL CALCULATIONS OF THE PRESSURES, FORCES, AND MOMENTS AT SUPERSONIC SPEEDS DUE TO VARIOUS LATERAL MOTIONS ACTING ON THIN ISOLATED VERTICAL TAILS. Kenneth Margolis and Percy J. Bobbitt. 1956. ii, 44p. diagrs., tabs. (NACA Rept. 1268. Supersedes TN 3373; TN 3240)

A SPECIAL METHOD FOR FINDING BODY DISTORTIONS THAT REDUCE THE WAVE DRAG OF WING AND BODY COMBINATIONS AT SUPERSONIC SPEEDS. Harvard Lomax and Max. A. Heaslet. 1956. ii, 38p. diagrs., tabs. (NACA Rept. 1282. Supersedes RM A55B16)

THEORY OF WING-BODY DRAG AT SUPERSONIC SPEEDS. Robert T. Jones. 1956. ii, 7p. diagrs. (NACA Rept. 1284. Supersedes RM A53H18a)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE SUBSONIC-FLOW FIELDS BENEATH SWEPT AND UNSWEPT WINGS WITH TABLES OF VORTEX-INDUCED VELOCITIES. William J. Alford, Jr. August 1956. 91p. diagrs., photo., tabs. (NACA TN 3738)

GENERAL THEORY OF WAVE-DRAG REDUCTION FOR COMBINATIONS EMPLOYING QUASI-CYLINDRICAL BODIES WITH AN APPLICATION TO SWEPT-WING AND BODY COMBINATIONS. Jack N. Nielsen and William C. Pitts. September 1956. 79p. diagrs. (NACA TN 3722. Supersedes RM A55B07)

CALCULATION OF THE FORCES AND MOMENTS ON A SLENDER FUSELAGE AND VERTICAL FIN PENETRATING LATERAL GUSTS. John M. Eggleston. October 1956. 20p. diagrs., tab. (NACA TN 3805)

CRASH INJURY. Gerard J. Pesman and A. Martin Eiband. November 1956. 36p. diagrs., photos. (NACA TN 3775)

WIND-TUNNEL INVESTIGATION TO DETERMINE THE HORIZONTAL- AND VERTICAL-TAIL CONTRIBUTIONS TO THE STATIC LATERAL STABILITY CHARACTERISTICS OF A COMPLETE-MODEL SWEPT-WING CONFIGURATION AT HIGH SUBSONIC SPEEDS. James W. Wiggins, Richard E. Kuhn, and Paul G. Fournier. November 1956. 34p. diagrs., photo. (NACA TN 3818. Supersedes RM L53E19)

A THEORETICAL INVESTIGATION OF THE DRAG OF GENERALIZED AIRCRAFT CONFIGURATIONS IN SUPERSONIC FLOW. E. W. Graham, P. A. Lagerstrom, R. M. Licher, and B. J. Beane, Douglas Aircraft Company, Inc. January 1957. (iv), 108p. diagrs. (NACA TM 1421)

SIMILITUDE RELATIONS FOR FREE-MODEL WIND-TUNNEL STUDIES OF STORE-DROPPING PROBLEMS. Carl A. Sandahl and Maxime A. Faget. January 1957. 26p. diagrs., photos., tab. (NACA TN 3907)

TABLES OF CHARACTERISTIC FUNCTIONS FOR SOLVING BOUNDARY-VALUE PROBLEMS OF THE WAVE EQUATION WITH APPLICATION TO SUPERSONIC INTERFERENCE. Jack N. Nielsen. February 1957. 245p. diagrs., tabs. (NACA TN 3873)

EXPERIMENTAL INVESTIGATION OF THE FORCES AND MOMENTS DUE TO SIDESLIP OF A SERIES OF TRIANGULAR VERTICAL- AND HORIZONTAL-TAIL COMBINATIONS AT MACH NUMBERS OF 1.62, 1.93, AND 2.41. Donald E. Coletti. March 1957. 32p. diagrs., photo., tabs. (NACA TN 3846. Supersedes RM L54G01)

INVESTIGATION OF A FULL-SCALE, CASCADE-TYPE THRUST REVERSER. Robert C. Kohl and Joseph S. Algranti. April 1957. 53p. diagrs., photos. (NACA TN 3975)

A THEORY FOR THE LATERAL RESPONSE OF AIRPLANES TO RANDOM ATMOSPHERIC TURBULENCE. John M. Eggleston. May 1957. i, 75p. diagrs., tabs. (NACA TN 3954)

THEORETICAL INVESTIGATION OF THE EFFECTS OF CONFIGURATION CHANGES ON THE CENTER-OF-PRESSURE SHIFT OF A BODY-WING-TAIL COMBINATION DUE TO ANGLE OF ATTACK AND MACH NUMBER AT TRANSONIC AND SUPERSONIC SPEEDS. J. Richard Spahr. May 1957. 43p. diagrs. (NACA TN 3966. Supersedes RM A55F02)

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Wing-Fuselage

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS AT A MACH NUMBER OF 1.53 INCLUDING EFFECT OF SMALL VARIATIONS OF SWEEP. Robert T. Madden. January 26, 1949. 71p. diagrs., photos., tabs. (NACA RM A8J04)

HIGH-SPEED WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE D-558-2 RESEARCH AIRPLANE AT HIGH SUBSONIC MACH NUMBERS AND AT A MACH NUMBER OF 1.2. Robert S. Osborne. April 5, 1949. 87p. diagrs., photos., tabs. (NACA RM L9C04)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - INVESTIGATION AT A MACH NUMBER OF 1.53 TO DETERMINE THE EFFECTS OF CAMBERING AND TWISTING THE WING FOR UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. Robert T. Madden. May 6, 1949. 33p. diagrs., photo., tabs. (NACA RM A9C07)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS THROUGHOUT THE SUBSONIC SPEED RANGE WITH THE WING CAMBERED AND TWISTED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. J. Lloyd Jones and Fred A. Demele. August 15, 1949. 41p. diagrs., photos., tab. (NACA RM A9D25)

FLIGHT INVESTIGATION FROM HIGH SUBSONIC TO SUPERSONIC SPEEDS TO DETERMINE THE ZERO-LIFT DRAG OF A TRANSONIC RESEARCH VEHICLE HAVING WINGS OF 45° SWEEPBACK, ASPECT RATIO 4, TAPER RATIO 0.6, AND NACA 65A006 AIRFOIL SECTIONS. Ellis Katz. October 27, 1949. 16p. diagrs., photos., tab. (NACA RM L9H30)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS AT SUPERSONIC SPEEDS OF A MODEL WITH THE WING TWISTED AND CAMBERED FOR UNIFORM LOAD. Charles F. Hall and John C. Heitmeyer. January 9, 1950. 35p. diagrs., photo. (NACA RM A9J24)

FLIGHT INVESTIGATION AT MACH NUMBERS FROM 0.8 TO 1.4 TO DETERMINE THE ZERO-LIFT DRAG OF WINGS WITH "M" AND "W" PLAN FORMS. Ellis Katz, Edward T. Marley, and William B. Pepper. September 18, 1950. 23p. diagrs., photos., tab. (NACA RM L50G31)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECT OF SIDESLIP ON AERODYNAMIC CHARACTERISTICS AT A MACH NUMBER OF 1.4 WITH THE WING TWISTED AND CAMBERED. Henry C. Lessing. September 29, 1950. 28p. diagrs., photos. (NACA RM A50F09)

COMPARISON OF LARGE-SCALE FLIGHT MEASUREMENTS OF ZERO-LIFT DRAG AT MACH NUMBERS FROM 0.9 TO 1.7 OF TWO WING-BODY COMBINATIONS HAVING SIMILAR 60° TRIANGULAR WINGS WITH NACA 65A003 SECTIONS. Eugene D. Schult. October 25, 1950. 15p. diagrs., photo., tab. (NACA RM L50I22)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TAPERED WING OF ASPECT RATIO 3.1 WITH 3-PERCENT-THICK, BICONVEX SECTION. David E. Reese and E. Ray Phelps. January 30, 1951. 26p. diagrs., photo. (NACA RM A50K28)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0008-63 SECTION. Donald W. Smith and John C. Heitmeyer. February 1, 1951. 22p. diagrs., photo. (NACA RM A50K20)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 SECTION. Donald W. Smith and John C. Heitmeyer. February 1, 1951. 23p. diagrs., photo. (NACA RM A50K21)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH NACA 0005-63 SECTION. John C. Heitmeyer and Jack D. Stephenson. February 2, 1951. 21p. diagrs., photo. (NACA RM A50K24)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0003-63 SECTION. John C. Heitmeyer and Willard G. Smith. February 2, 1951. 22p. diagrs., photo. (NACA RM A50K24a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TRIANGULAR WING OF ASPECT RATIO 4 WITH NACA 0005-63 THICKNESS DISTRIBUTION, CAMBERED AND TWISTED FOR TRAPEZOIDAL SPAN LOAD DISTRIBUTION. E. Ray Phelps and Willard G. Smith. February 2, 1951. 23p. diagrs., photo., tab. (NACA RM A50K24b)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 THICKNESS DISTRIBUTION, CAMBERED AND TWISTED FOR A TRAPEZOIDAL SPAN LOAD DISTRIBUTION. Willard G. Smith and E. Ray Phelps. February 5, 1951. 21p. diagrs., photo., tab. (NACA RM A50K27a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH 3-PERCENT-THICK ROUNDED NOSE SECTION. John C. Heitmeyer and Ronald C. Hightower. August 1951. 17p. diagrs. (NACA RM A51F21)

INVESTIGATION OF MINIMUM DRAG AND MAXIMUM LIFT-DRAG RATIOS OF SEVERAL WING-BODY COMBINATIONS INCLUDING A CAMBERED TRIANGULAR WING AT LOW REYNOLDS NUMBERS AND AT SUPERSONIC SPEEDS. Clinton E. Brown and L. K. Hargrave. August 1951. 62p. diagrs., photos., tabs. (NACA RM L51E11)

(1) AERODYNAMICS

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 3 WITH NACA 0003-63 SECTION. John C. Heitmeyer. September 1951. 20p. diagrs. (NACA RM A51H02)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE 45° SWEPT-BACK WING OF ASPECT RATIO 3, TAPER RATIO 0.4 WITH 3-PERCENT-THICK, BICONVEX SECTION. John C. Heitmeyer. September 1951. 20p. diagrs. (NACA RM A51H10)

EXPERIMENTAL AND THEORETICAL STUDY OF THE EFFECTS OF BODY SIZE ON THE AERODYNAMIC CHARACTERISTICS OF AN ASPECT RATIO 3.0 WING-BODY COMBINATION. Edward J. Hopkins and Hubert C. Carel. October 1951. 52p. diagrs., photos., tabs. (NACA RM A51G24)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - AN INVESTIGATION AT LARGE REYNOLDS NUMBERS OF THE LOW-SPEED CHARACTERISTICS OF SEVERAL WING-BODY COMBINATIONS. Donald W. Smith, Harry H. Shibata, and Ralph Selan. February 1952. 56p. diagrs., photos., tab. (NACA RM A51K28)

THE EFFECTS OF SUCTION THROUGH POROUS LEADING-EDGE SURFACES ON THE AERODYNAMIC CHARACTERISTICS OF A 47.5° SWEPTBACK WING-FUSELAGE COMBINATION AT A REYNOLDS NUMBER OF 4.4×10^6. Jerome Pasamanick and William I. Scallion. March 1952. 61p. diagrs., photo., tabs. (NACA RM L51K15)

A COMPARISON OF THE CHORDWISE PRESSURE DISTRIBUTION AND SPANWISE DISTRIBUTION OF LOADING AT SUBSONIC SPEEDS ON TWO TRIANGULAR WINGS OF ASPECT RATIO 2 HAVING NACA 0005 AND 0008 SECTIONS. Donald W. Smith and Verlin D. Reed. May 1952. 142p. diagrs., photo., tabs. (NACA RM A51L21)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.70 TO 1.37 OF ROCKET-PROPELLED MODELS HAVING A MODIFIED TRIANGULAR WING. Rowe Chapman, Jr., and John D. Morrow. May 1952. 35p. diagrs., photos., tab. (NACA RM L52A31)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 3 WITH AIR-TO-AIR MISSILE MODELS MOUNTED EXTERNALLY. Donald Conrard. June 1952. 28p. diagrs., photo. (NACA RM A52C10a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TAPERED WING OF ASPECT RATIO 3.1 WITH 3-PERCENT-THICK ROUNDED-NOSE SECTION. John C. Heitmeyer. July 1952. 25p. diagrs., tabs. (NACA RM A52D23)

PRESSURE DISTRIBUTION AT LOW SPEED ON A MODEL INCORPORATING A W WING WITH ASPECT RATIO 6, 45° SWEEP, TAPER RATIO 0.6, AND AN NACA 65A009 AIRFOIL SECTION. Edward C. Polhamus and Albert G. Few, Jr. August 1952. 46p. diagrs., photo. (NACA RM L52F11)

FLUTTER OF A 60° DELTA WING (NACA 65A003 AIRFOIL) ENCOUNTERED AT SUPERSONIC SPEEDS DURING THE FLIGHT TEST OF A ROCKET-PROPELLED MODEL. Joseph H. Judd and William T. Lauten, Jr. September 1952. 24p. diagrs., photos., tabs. (NACA RM L52E06a)

AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION AND THE FUSELAGE ALONE OBTAINED IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Robert S. Osborne and John P. Mugler, Jr. September 1952. 71p. diagrs., photos., tabs. (NACA RM L52E14)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. SWEEP SERIES. Richard E. Kuhn and Paul G. Fournier. September 1952. 30p. diagrs., photos. (NACA RM L52G11a)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE INTERFERENCE BETWEEN A 45° SWEPTBACK WING AND A SYSTEMATIC SERIES OF FOUR BODIES. Donald L. Loving and Dewey E. Wornom. November 1952. 42p. diagrs., photos., tabs. (NACA RM L52J01)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE CHARACTERISTICS OF A TWISTED AND CAMBERED 45° SWEPTBACK WING-FUSELAGE CONFIGURATION. Daniel E. Harrison. December 1952. 20p. diagrs. (NACA RM L52K18)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF WING INCIDENCE ANGLE ON THE CHARACTERISTICS OF TWO WING-BODY COMBINATIONS. Francis G. Morgan, Jr. January 1953. 28p. diagrs., photo. (NACA RM L52K06a)

TRANSONIC WIND-TUNNEL INVESTIGATION OF AN UNSWEPT WING IN COMBINATION WITH A SYSTEMATIC SERIES OF FOUR BODIES. Bruce B. Estabrooks. January 1953. 25p. diagrs., photos. (NACA RM L52K12a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - COMPARISON OF THREE WINGS OF ASPECT RATIO 2 OF RECTANGULAR, SWEPTBACK, AND TRIANGULAR PLAN FORM, INCLUDING EFFECTS OF THICKNESS DISTRIBUTION. Ronald C. Hightower. February 1953. 30p. diagrs., tabs. (NACA RM A52L02)

EFFECT OF VERTICAL POSITION OF THE WING ON THE AERODYNAMIC CHARACTERISTICS OF THREE WING-BODY COMBINATIONS. John C. Heitmeyer. February 1953. 56p. diagrs., photo., tabs. (NACA RM A52L15a)

TRANSONIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION. EFFECT OF LONGITUDINAL WING POSITION AND DIVISION OF WING AND FUSELAGE FORCES AND MOMENTS. Joseph M. Hallissy and Donald R. Bowman. February 1953. 39p. diagrs., photo. (NACA RM L52K04)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF AN UNSWEPT-WING-BODY COMBINATION AT ANGLES OF ATTACK UP TO 24°. Bruce B. Estabrooks. February 1953. 23p. diagrs., tab. (NACA RM L52L19)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF LONGITUDINAL WING LOCATION AND VARYING BODY SIZE ON THE INTERFERENCE CHARACTERISTICS OF A 45° SWEPTBACK WING. Donald L. Loving. March 1953. 31p. diagrs., photo., tabs. (NACA RM L52L16)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A 60° TRIANGULAR WING IN COMBINATION WITH A SYSTEMATIC SERIES OF THREE BODIES. Thomas C. Kelly. April 1953. 22p. diagrs., photo. (NACA RM L52L22a)

EFFECT OF LEADING-EDGE CHORD-EXTENSIONS ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT MACH NUMBERS OF 0.40 TO 1.03. F. E. West, Jr., George Liner, and Gladys S. Martz. April 1953. 40p. diagrs., photo. (NACA RM L53B02)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. James W. Wiggins and Paul G. Fournier. April 1953. 25p. diagrs., photos. (NACA RM L53B25a)

SUBSONIC STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A WING-BODY COMBINATION HAVING A POINTED WING OF ASPECT RATIO 2 WITH CONSTANT-PERCENT-CHORD TRAILING-EDGE ELEVONS. Donald W. Smith and Verlin D. Reed. May 1953. 143p. diagrs., photos., tab. (NACA RM A53C20)

FREE-FLIGHT LONGITUDINAL-STABILITY INVESTIGATION INCLUDING SOME EFFECTS OF WING ELASTICITY FROM MACH NUMBERS OF 0.85 TO 1.34 OF A TAILLESS MISSILE CONFIGURATION HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 5.5. Richard G. Arbic and Warren Gillespie, Jr. August 1953. 30p. diagrs., photos., tabs. (NACA RM L53F18)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL AND STATIC LATERAL STABILITY CHARACTERISTICS OF A WING-FUSELAGE COMBINATION HAVING A TRIANGULAR WING OF ASPECT RATIO 2.31 AND AN NACA 65A003 AIRFOIL. James W. Wiggins. August 1953. 28p. diagrs., photos. (NACA RM L53G09a)

LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS IN SIDESLIP OF A DELTA-WING-FUSELAGE MODEL WITH HORN-BALANCE-TYPE AILERONS AND WITH AND WITHOUT NACELLES. William I. Scallion. August 1953. 31p. diagrs., photo., tabs. (NACA RM L53G09b)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS IN PITCH AND SIDESLIP AT HIGH SUBSONIC SPEEDS OF A WING-FUSELAGE COMBINATION HAVING A TRIANGULAR WING OF ASPECT RATIO 4. Paul G. Fournier. August 1953. 23p. diagrs., photos. (NACA RM L53G14a)

STATIC LATERAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 47.7° SWEPTBACK WING OF ASPECT RATIO 6 AND THE CONTRIBUTION OF VARIOUS MODEL COMPONENTS AT A REYNOLDS NUMBER OF 4.45×10^6. Roland F. Griner. September 1953. 83p. diagrs., photos., tabs. (NACA RM L53G09)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A FENCE AND A LEADING-EDGE NOTCH ON THE AERODYNAMIC LOADING CHARACTERISTICS IN PITCH OF A 45° SWEPTBACK WING AT HIGH SUBSONIC SPEEDS. Richard E. Kuhn, James W. Wiggins, and Andrew L. Byrnes, Jr. October 1953. 56p. diagrs., photo., tabs. (NACA RM L53H24)

WING LOADS ON THE BELL X-1 RESEARCH AIRPLANE (10-PERCENT-THICK WING) AS DETERMINED BY PRESSURE-DISTRIBUTION MEASUREMENTS IN FLIGHT AT SUBSONIC AND TRANSONIC SPEEDS. Ronald J. Knapp and Gareth H. Jordan. November 1953. 35p. diagrs., photo., tab. (NACA RM L53G14)

FUSELAGE PRESSURES MEASURED ON THE BELL X-1 RESEARCH AIRPLANE IN TRANSONIC FLIGHT. Ronald J. Knapp, Gareth H. Jordan, and Wallace E. Johnson. November 1953. 21p. diagrs., photo. (NACA RM L53I15)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS TO DETERMINE THE ROLLING DERIVATIVES OF TWO WING-FUSELAGE COMBINATIONS HAVING TRIANGULAR WINGS, INCLUDING A SEMIEMPIRICAL METHOD OF ESTIMATING THE ROLLING DERIVATIVES. James W. Wiggins. February 1954. 32p. diagrs. (NACA RM L53L18a)

A LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS OF TWO TYPES OF CONTROLS AND BALANCING TABS ON A LARGE-SCALE THIN DELTA-WING—FUSELAGE MODEL. Marvin P. Fink and Bennie W. Cocke. March 1954. 69p. diagrs., photo., tabs. (NACA RM L54B03)

WIND-TUNNEL INVESTIGATION OF EFFECT OF SWEEP ON ROLLING DERIVATIVES AT ANGLES OF ATTACK UP TO 13° AND AT HIGH SUBSONIC MACH NUMBERS, INCLUDING A SEMIEMPIRICAL METHOD OF ESTIMATING THE ROLLING DERIVATIVES. James W. Wiggins. April 1954. 47p. diagrs., tab. (NACA RM L54C26)

A WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE LATERAL CONTROL CHARACTERISTICS OF VARIOUS PLAIN SPOILER CONFIGURATIONS ON A 3-PERCENT-THICK 60° DELTA WING. Harleth G. Wiley. May 1954. 45p. diagrs., tabs. (NACA RM L54D01)

SUPERSONIC FLUTTER OF A 60° DELTA WING ENCOUNTERED DURING THE FLIGHT TEST OF A ROCKET-PROPELLED MODEL. William T. Lauten, Jr., and Joseph H. Judd. June 1954. 20p. diagrs., photos., tabs. (NACA RM L54D12a)

THE EFFECT OF GROUND ON THE LOW-SPEED AERODYNAMIC, CONTROL, AND CONTROL HINGE-MOMENT CHARACTERISTICS OF A DELTA-WING—FUSELAGE MODEL WITH TRAILING-EDGE CONTROLS. William L. Scallion. September 1954. 52p. diagrs., photos., tabs. (NACA RM L54H03)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEEDS TO DETERMINE THE ROLLING-STABILITY DERIVATIVES OF THREE WING-FUSELAGE CONFIGURATIONS. William C. Sleeman, Jr. October 1954. 43p. diagrs. (NACA RM L54H11)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL FORCE AND MOMENT CHARACTERISTICS OF A PLANE AND A CAMBERED 3-PERCENT-THICK DELTA WING OF ASPECT RATIO 3 ON A SLENDER BODY. Dale L. Burrows and William E. Palmer. November 1954. 31p. diagrs., photos., tab. (NACA RM L54H25)

TESTS IN THE AMES 40- BY 80-FOOT WIND TUNNEL OF THE AERODYNAMIC CHARACTERISTICS OF AIRPLANE MODELS WITH PLAIN SPOILER AILERONS. Ralph W. Franks. December 1954. 47p. diagrs., photo., tabs. (NACA RM A54H26)

QUASI-CYLINDRICAL THEORY OF WING-BODY INTERFERENCE AT SUPERSONIC SPEEDS AND COMPARISON WITH EXPERIMENT. Jack N. Nielsen. 1955. ii, 56p. diagrs., tabs. (NACA Rept. 1252. Supersedes TN 2677; TN 3128)

AERODYNAMIC LOADING CHARACTERISTICS IN SIDESLIP OF A 45° SWEPTBACK WING WITH AND WITHOUT A FENCE AT HIGH SUBSONIC SPEEDS. Richard E. Kuhn and Andrew L. Byrnes, Jr. January 1955. 40p. diagrs., photo., tab. (NACA RM L54K15)

GROUND EFFECTS ON THE LONGITUDINAL CHARACTERISTICS OF TWO MODELS WITH WINGS HAVING LOW ASPECT RATIO AND POINTED TIPS. Donald A. Buell and Bruce E. Tinling. July 1955. 48p. diagrs., photos., tabs. (NACA RM A55E04)

SOME FACTORS AFFECTING THE VARIATION OF PITCHING MOMENT WITH SIDESLIP OF AIRCRAFT CONFIGURATIONS. Edward C. Polhamus. July 1955. 29p. diagrs. (NACA RM L55E20b)

A STUDY OF THE ZERO-LIFT DRAG-RISE CHARACTERISTICS OF WING-BODY COMBINATIONS NEAR THE SPEED OF SOUND. Richard T. Whitcomb. 1956. ii, 22p. diagrs., tabs. (NACA Rept. 1273. Supersedes RM L52H08)

AN ANALYSIS OF ONCE-PER-REVOLUTION OSCILLATING AERODYNAMIC THRUST LOADS ON SINGLE-ROTATION PROPELLERS ON TRACTOR AIRPLANES AT ZERO YAW. Vernon L. Rogallo, Paul F. Yaggy, and John L. McCloud, III. 1956. ii, 30p. diagrs., photos. (NACA Rept. 1295. Supersedes TN 3395)

A THEORETICAL STUDY OF THE LIFTING EFFICIENCY AT SUPERSONIC SPEEDS OF WINGS UTILIZING INDIRECT LIFT INDUCED BY VERTICAL SURFACES. Vernon J. Rossow. March 1956. ii, 59p. diagrs. (NACA RM A55L08)

THE EFFECTS OF COMPRESSIBILITY ON THE UPWASH AT THE PROPELLER PLANES OF A FOUR-ENGINE TRACTOR AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF $10^{\frac{1}{2}}$. Armando E. Lopez and Jerald K. Dickson. July 1956. 38p. diagrs., photos., tab. (NACA TN 3675. Supersedes RM A53A30a)

THE INTERFERENCE EFFECTS OF A BODY ON THE SPANWISE LOAD DISTRIBUTIONS OF TWO 45° SWEPTBACK WINGS OF ASPECT RATIO 8.02 FROM LOW-SPEED TESTS. Albert P. Martina. August 1956. 47p. diagrs., photo., tabs. (NACA TN 3730. Supersedes RM L51K23)

COMPARISON OF FLIGHT AND WIND-TUNNEL MEASUREMENTS OF HIGH-SPEED-AIRPLANE STABILITY AND CONTROL CHARACTERISTICS. Walter C. Williams, Hubert M. Drake, and Jack Fischel. (The information in this report was also contained in a paper by the same authors which was presented to Wind Tunnel and Model Testing Panel of Advisory Group for Aeronautical Research and Development, Brussels, Belgium, August 27-31, 1956). August 1956. 16p. diagrs. (NACA TN 3859)

GENERAL THEORY OF WAVE-DRAG REDUCTION FOR COMBINATIONS EMPLOYING QUASI-CYLINDRICAL BODIES WITH AN APPLICATION TO SWEPT-WING AND BODY COMBINATIONS. Jack N. Nielsen and William C. Pitts. September 1956. 79p. diagrs. (NACA TN 3722. Supersedes RM A55B07)

AERODYNAMIC CHARACTERISTICS AND FLYING QUALITIES OF A TAILLESS TRIANGULAR-WING AIRPLANE CONFIGURATION AS OBTAINED FROM FLIGHTS OF ROCKET-PROPELLED MODELS AT TRANSONIC AND LOW SUPERSONIC SPEEDS. Grady L. Mitcham, Joseph E. Stevens, and Harry P. Norris. November 1956. 57p. diagrs., photos., tabs. (NACA TN 3753. Supersedes RM L9L07)

DRAG INTERFERENCE BETWEEN A POINTED CYLINDRICAL BODY AND TRIANGULAR WINGS OF VARIOUS ASPECT RATIOS AT MACH NUMBERS OF 1.50 AND 2.02. Elliott D. Katzen and George E. Kaattari. November 1956. 41p. diagrs., photos., tabs. (NACA TN 3794. Supersedes RM A51C27)

ON SLENDER-BODY THEORY AND THE AREA RULE AT TRANSONIC SPEEDS. Keith C. Harder and E. B. Klunker. November 1956. 14p. (NACA TN 3815. Supersedes RM L54A29a)

A STUDY OF SEVERAL FACTORS AFFECTING THE STABILITY CONTRIBUTED BY A HORIZONTAL TAIL AT VARIOUS VERTICAL POSITIONS ON A SWEPTBACK-WING AIRPLANE MODEL. Gerald V. Foster and Roland F. Griner. November 1956. 28p. diagrs., tab. (NACA TN 3848. Supersedes RM L9H19)

LIFT AND PITCHING-MOMENT INTERFERENCE BETWEEN A POINTED CYLINDRICAL BODY AND TRIANGULAR WINGS OF VARIOUS ASPECT RATIOS AT MACH NUMBERS OF 1.50 AND 2.02. Jack N. Nielsen, Elliott D. Katzen, and Kenneth K. Tang. December 1956. 49p. diagrs., photos., tabs. (NACA TN 3795. Supersedes RM A50F06)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS IN PITCH OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. Thomas J. King, Jr., and Thomas B. Pasteur, Jr. December 1956. 36p. diagrs., photos., tab. (NACA TN 3867. Supersedes RM L53E20)

SUBSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECT OF FUSELAGE AFTERBODY ON DIRECTIONAL STABILITY OF WING-FUSELAGE COMBINATIONS AT HIGH ANGLES OF ATTACK. Edward C. Polhamus and Kenneth P. Spreemann. December 1956. 25p. diagrs., photo., tab. (NACA TN 3896)

A THEORETICAL INVESTIGATION OF THE DRAG OF GENERALIZED AIRCRAFT CONFIGURATIONS IN SUPERSONIC FLOW. E. W. Graham, P. A. Lagerstrom, R. M. Licher, and B. J. Beane, Douglas Aircraft Company, Inc. January 1957. (iv), 108p. diagrs. (NACA TM 1421)

COMPARISON OF CALCULATED AND EXPERIMENTAL LOAD DISTRIBUTIONS ON THIN WINGS AT HIGH SUBSONIC AND SONIC SPEEDS. John L. Crigler. January 1957. 46p. diagrs., tab. (NACA TN 3941)

THE LINEARIZED SUBSONIC FLOW ABOUT SYMMETRICAL NONLIFTING WING-BODY COMBINATIONS. John B. McDevitt. April 1957. 67p. diagrs. (NACA TN 3964)

(1.7.1.1.2)
Wing-Nacelle

EFFECTS OF THE SPANWISE, CHORDWISE, AND VERTICAL LOCATION OF AN EXTERNAL STORE ON THE AERODYNAMIC CHARACTERISTICS OF A 60° DELTA WING AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Carl R. Jacobsen. October 1952. 34p. diagrs. (NACA RM L52H29)

THE EFFECTS OF TIP-MOUNTED JET NACELLES ON THE TRANSONIC CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS. Charles F. Coe. December 1952. 81p. diagrs., photos., tabs. (NACA RM A52J21)

A SMALL-SCALE INVESTIGATION OF THE EFFECT OF SPANWISE AND CHORDWISE POSITIONING OF AN OGIVE-CYLINDER UNDERWING NACELLE ON THE HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK TAPERED-IN-THICKNESS WING OF ASPECT RATIO 6. H. Norman Silvers and Thomas J. King, Jr. December 1952. 57p. diagrs., tab. (NACA RM L52J22)

LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS IN SIDESLIP OF A DELTA-WING-FUSELAGE MODEL WITH HORN-BALANCE-TYPE AILERONS AND WITH AND WITHOUT NACELLES. William I. Scallion. August 1953. 31p. diagrs., photo., tabs. (NACA RM L53G09b)

AN ANALYSIS OF ONCE-PER-REVOLUTION OSCILLATING AERODYNAMIC THRUST LOADS ON SINGLE-ROTATION PROPELLERS ON TRACTOR AIRPLANES AT ZERO YAW. Vernon L. Rogallo, Paul F. Yaggy, and John L. McCloud, III. 1956. ii, 30p. diagrs., photos. (NACA Rept. 1295. Supersedes TN 3395)

THE EFFECTS OF COMPRESSIBILITY ON THE UPWASH AT THE PROPELLER PLANES OF A FOUR-ENGINE TRACTOR AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10^{1}. Armando E. Lopez and Jerald K. Dickson. July 1956. 38p. diagrs., photos., tab. (NACA TN 3675. Supersedes RM A53A30a)

THE RESULTS OF WIND-TUNNEL TESTS TO A MACH NUMBER OF 0.90 OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10. George G. Edwards, Jerald K. Dickson, Fred B. Sutton, and Fred A. Demele. September 1956. 171p. diagrs., photo., tabs. (NACA TN 3789. Supersedes RM A53I28)

ANALYSIS OF WIND-TUNNEL TESTS TO A MACH NUMBER OF 0.90 OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10. George G. Edwards, Donald A. Buell, Fred A. Demele, and Fred B. Sutton. September 1956. 170p. diagrs., photos., tabs. (NACA TN 3790. Supersedes RM A54F14)

WIND-TUNNEL INVESTIGATION OF AN EXTERNAL-FLOW JET-AUGMENTED SLOTTED FLAP SUITABLE FOR APPLICATION TO AIRPLANES WITH POD-MOUNTED JET ENGINES. John P. Campbell and Joseph L. Johnson, Jr. December 1956. 47p. diagrs., tab. (NACA TN 3898)

(1.7.1.1.3)
Tail-Wing and Fuselage

HIGH-SPEED WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE D-558-2 RESEARCH AIRPLANE AT HIGH SUBSONIC MACH NUMBERS AND AT A MACH NUMBER OF 1.2. Robert S. Osborne. April 5, 1949. 87p. diagrs., photos., tabs. (NACA RM L9C04)

LONGITUDINAL TRIM AND DRAG CHARACTERISTICS OF ROCKET-PROPELLED MODELS REPRESENTING TWO AIRPLANE CONFIGURATIONS. James H. Parks and Jesse L. Mitchell. February 6, 1950. 25p. diagrs., photos., tab. (NACA RM L9L22)

PRELIMINARY RESULTS FROM A FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION WITH A THIN STRAIGHT WING OF ASPECT RATIO 3. Clarence L. Gillis, Robert F. Peck, and A. James Vitale. February 14, 1950. 53p. diagrs., photos., tabs. (NACA RM L9K25a)

LIFT AND DRAG COEFFICIENTS FOR THE BELL X-1 AIRPLANE (8-PERCENT-THICK WING) IN POWER-OFF TRANSONIC FLIGHT. L. Robert Carman and John R. Carden. June 1951. 24p. diagrs., photo., tab. (NACA RM L51E08)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.70 TO 1.37 OF ROCKET-PROPELLED MODELS HAVING A MODIFIED TRIANGULAR WING. Rowe Chapman, Jr., and John D. Morrow. May 1952. 35p. diagrs., photos., tab. (NACA RM L52A31)

EFFECTS OF CHORD DISCONTINUITIES AND CHORDWISE FENCES ON LOW-SPEED STATIC LONGITUDINAL STABILITY OF AN AIRPLANE MODEL HAVING A 35° SWEPTBACK WING. Byron M. Jaquet. June 1952. 54p. photos., diagrs., tab. (NACA RM L52C25)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED STATIC AND ROTARY STABILITY DERIVATIVES OF A 0.13-SCALE MODEL OF THE DOUGLAS D-558-II AIRPLANE IN THE LANDING CONFIGURATION. M. J. Queijo and Evalyn G. Wells. August 1952. 17p. diagrs., photo., tab. (NACA RM L52G07)

EFFECTS OF CHORD-EXTENSION AND DROOP OF COMBINED LEADING-EDGE FLAP AND CHORD-EXTENSION ON LOW-SPEED STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 35° SWEPTBACK WING WITH PLAIN FLAPS NEUTRAL OR DEFLECTED. Byron M. Jaquet. January 1953. 34p. diagrs., photos. (NACA RM L52K21a)

EFFECTS OF WING ELASTICITY ON THE AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WINGS AS OBTAINED FROM FREE-FLIGHT ROCKET-MODEL TESTS AT TRANSONIC SPEEDS. A. James Vitale. January 1953. 49p. diagrs., photos., tab. (NACA RM L52L30)

A TRANSONIC INVESTIGATION BY THE FREE-FALL METHOD OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WING AND TAIL SURFACES. Stanley Faber and John M. Eggleston. June 1953. 41p. diagrs., photos., tabs. (NACA RM L53D10)

HORIZONTAL-TAIL LOAD MEASUREMENTS AT TRANSONIC SPEEDS OF THE BELL X-1 RESEARCH AIRPLANE. John T. Rogers. September 1953. 23p. diagrs., photo., tab. (NACA RM L53F30)

STATIC LATERAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 47.7° SWEPTBACK WING OF ASPECT RATIO 6 AND THE CONTRIBUTION OF VARIOUS MODEL COMPONENTS AT A REYNOLDS NUMBER OF 4.45×10^6. Roland F. Griner. September 1953. 83p. diagrs., photos., tabs. (NACA RM L53G09)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF TWO UNSWEPT WINGS OF HEXAGONAL AIRFOIL SECTIONS HAVING ASPECT RATIOS OF 2.5 AND 4.0 WITH FUSELAGE AND WITH HORIZONTAL TAIL LOCATED AT VARIOUS VERTICAL POSITIONS. William M. Hadaway and Patrick A. Cancro. October 1953. 29p. diagrs., photos. (NACA RM L53H14a)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF LOCATION OF A DELTA HORIZONTAL TAIL ON THE LONGITUDINAL STABILITY AND CONTROL OF A FUSELAGE AND THIN DELTA WING WITH DOUBLE SLOTTED FLAPS INCLUDING THE EFFECTS OF A GROUND BOARD. John M. Riebe and Jean C. Graven, Jr. October 1953. 38p. diagrs., tabs. (NACA RM L53H19a)

SOME LOW-SPEED WIND-TUNNEL EXPERIMENTS PERTAINING TO THE LONGITUDINAL STABILITY CHARACTERISTICS OF A 35° SWEPT-WING MODEL AND AN UNSWEPT-WING MODEL. Byron M. Jaquet. October 1953. 43p. diagrs., photos., tab. (NACA RM L53H31)

FLIGHT TEST RESULTS OF ROCKET-PROPELLED BUFFET-RESEARCH MODELS HAVING 45° SWEPTBACK WINGS AND 45° SWEPTBACK TAILS LOCATED IN THE WING CHORD PLANE. Homer P. Mason. October 1953. 26p. diagrs., photos., tab. (NACA RM L53I10)

PRELIMINARY DRAG MEASUREMENTS OF THE CONSOLIDATED VULTEE XF-92A DELTA-WING AIRPLANE IN FLIGHT TESTS TO A MACH NUMBER OF 1.01. Donald R. Bellman and Thomas R. Sisk. January 1954. 21p. diagrs., photos., tab. (NACA RM L53J23)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF LOCATION OF A DELTA AND A STRAIGHT TAIL ON THE LONGITUDINAL STABILITY AND CONTROL OF A THIN DELTA WING WITH EXTENDED DOUBLE SLOTTED FLAPS. John M. Riebe and Jean C. Graven, Jr. January 1954. 49p. diagrs., tabs. (NACA RM L53J26)

MEASURED AND ESTIMATED LATERAL STATIC AND ROTARY DERIVATIVES OF A 1/12-SCALE MODEL OF A HIGH-SPEED FIGHTER AIRPLANE WITH UNSWEPT WINGS. James L. Williams. January 1954. 24p. diagrs., photos., tab. (NACA RM L53K09)

THE EFFECTS OF CHANGES IN ASPECT RATIO AND TAIL HEIGHT ON THE LONGITUDINAL STABILITY CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A MODEL WITH A WING HAVING 32.6° SWEEPBACK. William J. Alford, Jr. and Thomas B. Pasteur, Jr. February 1954. 61p. diagrs., photos., tab. (NACA RM L53L09)

THE EFFECTS OF HORIZONTAL-TAIL LOCATION AND SIZE ON THE SUBSONIC LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Bruce E. Tinling and Armando E. Lopez. March 1954. 85p. diagrs., photo., tabs. (NACA RM A53L15)

TESTS IN THE AMES 40- BY 80-FOOT WIND TUNNEL OF THE EFFECTS OF VARIOUS WING MODIFICATIONS ON THE LONGITUDINAL CHARACTERISTICS OF TWO TRIANGULAR-WING AIRPLANE MODELS WITH AND WITHOUT HORIZONTAL TAILS. David G. Koenig. April 1954. 29p. diagrs., tabs. (NACA RM A54B09)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING SWEPTBACK-, M-, W-, AND CRANKED-WING PLAN FORMS AND SEVERAL HORIZONTAL-TAIL LOCATIONS. Kenneth W. Goodson and Robert E. Becht. May 1954. 72p. diagrs., photo. (NACA RM L54C29)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING CROPPED-DELTA, SWEPT, AND UNSWEPT WINGS AND SEVERAL HORIZONTAL-TAIL HEIGHTS. Kenneth W. Goodson and Robert E. Becht. October 1954. 44p. diagrs. (NACA RM L54H12)

FLIGHT INVESTIGATION OF THE EFFECTS OF HORIZONTAL-TAIL HEIGHT, MOMENT OF INERTIA, AND CONTROL EFFECTIVENESS ON THE PITCH-UP CHARACTERISTICS OF A 35° SWEPT-WING FIGHTER AIRPLANE AT HIGH SUBSONIC SPEEDS. Norman M. McFadden and Donovan R. Heinle. January 1955. 24p. diagrs., photos., tab. (NACA RM A54F21)

EFFECTS OF SPANWISE LOCATION OF SWEEP DISCONTINUITY ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL WITH WINGS OF M AND W PLAN FORM. Paul G. Fournier. January 1955. 44p. diagrs., photo., tab. (NACA RM L54K23)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING TANKS AND SPEED BRAKES ON THE STATIC STABILITY OF A MODEL HAVING A 40° SWEPT WING. William C. Sleeman, Jr., and William J. Alford, Jr. May 1955. 62p. diagrs., photo., tabs. (NACA RM L55C17)

EFFECTS OF SPANWISE LOCATION OF SWEEP DISCONTINUITY ON THE LOW-SPEED STATIC LATERAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL WITH WINGS OF M AND W PLAN FORM. Paul G. Fournier. May 1955. 33p. diagrs., photo. (NACA RM L55D22)

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GROUND EFFECTS ON THE LONGITUDINAL CHARACTERISTICS OF TWO MODELS WITH WINGS HAVING LOW ASPECT RATIO AND POINTED TIPS. Donald A. Buell and Bruce E. Tinling. July 1955. 48p. diagrs., photos., tabs. (NACA RM A55E04)

SOME FACTORS AFFECTING THE VARIATION OF PITCHING MOMENT WITH SIDESLIP OF AIRCRAFT CONFIGURATIONS. Edward C. Polhamus. July 1955. 29p. diagrs. (NACA RM L55E20b)

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COMPARISON OF FLIGHT AND WIND-TUNNEL MEASUREMENTS OF HIGH-SPEED-AIRPLANE STABILITY AND CONTROL CHARACTERISTICS. Walter C. Williams, Hubert M. Drake, and Jack Fischel. (The information in this report was also contained in a paper by the same authors which was presented to Wind Tunnel and Model Testing Panel of Advisory Group for Aeronautical Research and Development, Brussels, Belgium, August 27-31, 1956). August 1956. 16p. diagrs. (NACA TN 3859)

THE RESULTS OF WIND-TUNNEL TESTS TO A MACH NUMBER OF 0.90 OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10. George G. Edwards, Jerald K. Dickson, Fred B. Sutton, and Fred A. Demele. September 1956. 171p. diagrs., photo., tabs. (NACA TN 3789. Supersedes RM A53I28)

ANALYSIS OF WIND-TUNNEL TESTS TO A MACH NUMBER OF 0.90 OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10. George G. Edwards, Donald A. Buell, Fred A. Demele, and Fred B. Sutton. September 1956. 170p. diagrs., photos., tabs. (NACA TN 3790. Supersedes RM A54F14)

FLIGHT INVESTIGATION OF THE STABILITY AND CONTROL CHARACTERISTICS OF A VERTICALLY RISING AIRPLANE RESEARCH MODEL WITH SWEPT OR UNSWEPT WINGS AND ×- OR +-TAILS. Robert H. Kirby. October 1956. 30p. diagrs., photos. (NACA TN 3812)

EXPERIMENTAL STEADY-STATE YAWING DERIVATIVES OF A 60° DELTA-WING MODEL AS AFFECTED BY CHANGES IN VERTICAL POSITION OF THE WING AND IN RATIO OF FUSELAGE DIAMETER TO WING SPAN. Byron M. Jaquet and Herman S. Fletcher. October 1956. 20p. diagrs., tab. (NACA TN 3843)

WIND-TUNNEL INVESTIGATION TO DETERMINE THE HORIZONTAL- AND VERTICAL-TAIL CONTRIBUTIONS TO THE STATIC LATERAL STABILITY CHARACTERISTICS OF A COMPLETE-MODEL SWEPT-WING CONFIGURATION AT HIGH SUBSONIC SPEEDS. James W. Wiggins, Richard E. Kuhn, and Paul G. Fournier. November 1956. 34p. diagrs., photo. (NACA TN 3818. Supersedes RM L53E19)

A STUDY OF SEVERAL FACTORS AFFECTING THE STABILITY CONTRIBUTED BY A HORIZONTAL TAIL AT VARIOUS VERTICAL POSITIONS ON A SWEPTBACK-WING AIRPLANE MODEL. Gerald V. Foster and Roland F. Griner. November 1956. 28p. diagrs., tab. (NACA TN 3848. Supersedes RM L9H19)

EXPERIMENTAL INVESTIGATION AT LOW SPEED OF THE EFFECTS OF WING POSITION ON THE STATIC STABILITY OF MODELS HAVING FUSELAGES OF VARIOUS CROSS SECTION AND UNSWEPT AND 45° SWEPTBACK SURFACES. William Letko. November 1956. 77p. diagrs., photo., tabs. (NACA TN 3857)

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WIND-TUNNEL INVESTIGATION OF AN EXTERNAL-FLOW JET-AUGMENTED SLOTTED FLAP SUITABLE FOR APPLICATION TO AIRPLANES WITH POD-MOUNTED JET ENGINES. John P. Campbell and Joseph L. Johnson, Jr. December 1956. 47p. diagrs., tab. (NACA TN 3898)

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EFFECTS OF FUSELAGE NOSE LENGTH AND A CANOPY ON THE STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF 45° SWEPTBACK AIRPLANE MODELS HAVING FUSELAGES WITH SQUARE CROSS SECTIONS. Byron M. Jaquet and H. S. Fletcher. April 1957. 47p. diagrs., photos., tabs. (NACA TN 3961)

SOME EFFECTS OF TAIL HEIGHT AND WING PLAN FORM ON THE STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A SMALL-SCALE MODEL AT HIGH SUBSONIC SPEEDS. Albert G. Few, Jr., and Thomas J. King, Jr. May 1957. 62p. diagrs., photo. (NACA TN 3957. Supersedes RM L54G12)

THEORETICAL INVESTIGATION OF THE EFFECTS OF CONFIGURATION CHANGES ON THE CENTER-OF-PRESSURE SHIFT OF A BODY-WING-TAIL COMBINATION DUE TO ANGLE OF ATTACK AND MACH NUMBER AT TRANSONIC AND SUPERSONIC SPEEDS. J. Richard Spahr. May 1957. 43p. diagrs. (NACA TN 3966. Supersedes RM A55F02)

EFFECTS OF HORIZONTAL-TAIL POSITION AND A WING LEADING-EDGE MODIFICATION CONSISTING OF A FULL-SPAN FLAP AND A PARTIAL-SPAN CHORD-EXTENSION ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT HIGH SUBSONIC SPEEDS OF A MODEL WITH A 45° SWEPTBACK WING. William D. Morrison, Jr., and William J. Alford, Jr. June 1957. 37p. diagrs., photo., tab. (NACA TN 3952. Supersedes RM L53E06)

(1.7.1.1.4)
Propeller and Jet Interference

THE RESULTS OF WIND-TUNNEL TESTS TO A MACH NUMBER OF 0.90 OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10. George G. Edwards, Jerald K. Dickson, Fred B. Sutton, and Fred A. Demele. September 1956. 171p. diagrs., photo., tabs. (NACA TN 3789. Supersedes RM A53I28)

ANALYSIS OF WIND-TUNNEL TESTS TO A MACH NUMBER OF 0.90 OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10. George G. Edwards, Donald A. Buell, Fred A. Demele, and Fred B. Sutton. September 1956. 170p. diagrs., photos., tabs. (NACA TN 3790. Supersedes RM A54F14)

WIND-TUNNEL TECHNIQUE FOR SIMULTANEOUS SIMULATION OF EXTERNAL FLOW FIELD ABOUT NACELLE INLET AND EXIT AIRSTREAMS AT SUPERSONIC SPEEDS. Gerald W. Englert and Roger W. Luidens. January 1957. 25p. diagrs. (NACA TN 3881)

(1.7.1.1.5)
External Stores

FREE-FLIGHT-TUNNEL INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A TIP-TO-TIP BOMBER-FIGHTER COUPLED AIRPLANE CONFIGURATION. Charles V. Bennett and Robert B. Cadman. April 4, 1951. 16p. diagrs., tab. (NACA RM L51A12)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 3 WITH AIR-TO-AIR MISSILE MODELS MOUNTED EXTERNALLY. Donald Conrard. June 1952. 28p. diagrs., photo. (NACA RM A52C10a)

EFFECTS OF THE SPANWISE, CHORDWISE, AND VERTICAL LOCATION OF AN EXTERNAL STORE ON THE AERODYNAMIC CHARACTERISTICS OF A 60° DELTA WING AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Carl R. Jacobsen. October 1952. 34p. diagrs. (NACA RM L52H29)

A SMALL-SCALE INVESTIGATION OF THE EFFECT OF SPANWISE AND CHORDWISE POSITIONING OF AN OGIVE-CYLINDER UNDERWING NACELLE ON THE HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK TAPERED-IN-THICKNESS WING OF ASPECT RATIO 6. H. Norman Silvers and Thomas J. King, Jr. December 1952. 57p. diagrs., tab. (NACA RM L52J22)

LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS IN SIDESLIP OF A DELTA-WING-FUSELAGE MODEL WITH HORN-BALANCE-TYPE AILERONS AND WITH AND WITHOUT NACELLES. William I. Scallion. August 1953. 31p. diagrs., photo., tabs. (NACA RM L53G09b)

FLIGHT MEASUREMENT OF AERODYNAMIC LOADS AND MOMENTS ON AN EXTERNAL STORE MOUNTED UNDER THE WING OF A SWEPT-WING FIGHTER-TYPE AIRPLANE. Thomas C. O'Bryan. November 1953. 25p. diagrs., photo., tab. (NACA RM L53G22)

EFFECTS OF EXTERNAL STORE MOUNTING ON THE BUFFET, TRIM, AND DRAG CHARACTERISTICS OF ROCKET-POWERED FUSELAGE AND STORE COMBINATIONS BETWEEN MACH NUMBERS OF 0.7 AND 1.4. Homer P. Mason. December 1953. 27p. diagrs., photos., tab. (NACA RM L53J22)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING TANKS AND SPEED BRAKES ON THE STATIC STABILITY OF A MODEL HAVING A 40° SWEPT WING. William C. Sleeman, Jr., and William J. Alford, Jr. May 1955. 62p. diagrs., photo., tabs. (NACA RM L55C17)

EFFECTS OF WING-MOUNTED TANK-TYPE STORES ON THE LOW-LIFT BUFFETING AND DRAG OF A SWEPT-WING AIRPLANE CONFIGURATION BETWEEN MACH NUMBERS OF 0.8 AND 1.3. Homer P. Mason. October 1955. 34p. diagrs., photos., tabs. (NACA RM L55D27)

LOW-SPEED LONGITUDINAL STABILITY AND LATERAL-CONTROL CHARACTERISTICS OF A MODEL OF A 40° SWEPT-WING FIGHTER-TYPE AIRPLANE AT A REYNOLDS NUMBER OF 9×10^6. Thomas V. Bollech and H. Neale Kelly. February 1956. 149p. diagrs., photo., tabs. (NACA RM L54B17)

SIDEWASH IN THE VICINITY OF LIFTING SWEPT WINGS AT SUPERSONIC SPEEDS. Percy J. Bobbitt and Peter J. Maxie, Jr. February 1957. 49p. diagrs. (NACA TN 3938)

INCOMPRESSIBLE FLUTTER CHARACTERISTICS OF REPRESENTATIVE AIRCRAFT WINGS. C. H. Wilts, California Institute of Technology. April 1957. 121p. diagrs., tabs. (NACA TN 3780)

(1.7.1.2) SPECIFIC AIRPLANES

RESULTS OF PRELIMINARY FLIGHT TESTS OF THE XS-1 AIRPLANE (8-PERCENT WING) TO A MACH NUMBER OF 1.25. W. C. Williams and De E. Beeler. April 6, 1948. 14p. diagrs. (NACA RM L8A23a)

RESULTS OBTAINED DURING A DIVE RECOVERY OF THE BELL XS-1 AIRPLANE TO HIGH LIFT COEFFICIENTS AT A MACH NUMBER GREATER THAN 1.0. Milton D. McLaughlin and Dorothy C. Clift. April 6, 1948. 6p. diagrs. (NACA RM L8C23a)

RESULTS OBTAINED DURING ACCELERATED TRANSONIC TESTS OF THE BELL XS-1 AIRPLANE IN FLIGHTS TO A MACH NUMBER OF 0.92. Hubert M. Drake, Milton D. McLaughlin, and Harold R. Goodman. April 19, 1948. 22p. diagrs., tab. (NACA RM L8A05a)

FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF A WING-AILERON CONFIGURATION SIMULATING THE D-558-2 AIRPLANE. Carl A. Sandahl. July 21, 1948. 10p. diagrs., photo., tab. (NACA RM L8E28)

FLIGHT AND WIND-TUNNEL INVESTIGATION TO DETERMINE THE AILERON-VIBRATION CHARACTERISTICS OF 1/4-SCALE WING PANELS OF THE DOUGLAS D-558-2 RESEARCH AIRPLANE. Ellwyn E. Angle and Reginald R. Lundstrom. November 30, 1948. 27p. diagrs., photos., tabs. (NACA RM L8H09)

AN INVESTIGATION OF THE SPIN AND RECOVERY CHARACTERISTICS OF A 1/25-SCALE MODEL OF THE DOUGLAS D-558-II AIRPLANE. Stanley H. Scher and Lawrence J. Gale. January 18, 1949. 29p. diagrs., photos., tabs. (NACA RM L8K19a)

HIGH-SPEED WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE D-558-2 RESEARCH AIRPLANE AT HIGH SUBSONIC MACH NUMBERS AND AT A MACH NUMBER OF 1.2. Robert S. Osborne. April 5, 1949. 87p. diagrs., photos., tabs. (NACA RM L9C04)

ANALYSIS OF THE EFFECTS OF VARIOUS MASS, AERODYNAMIC, AND DIMENSIONAL PARAMETERS ON THE DYNAMIC LATERAL STABILITY OF THE DOUGLAS D-558-2 AIRPLANE. M. J. Queijo and W. H. Michael, Jr. April 15, 1949. 33p. diagrs., tabs. (NACA RM L9A24)

PRELIMINARY MEASUREMENTS OF THE DYNAMIC LATERAL STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II (BUAERO NO. 37974) AIRPLANE. Sigurd A. Sjoberg. August 18, 1949. 8p. diagrs., tab. (NACA RM L9G18)

PRELIMINARY FLIGHT MEASUREMENTS OF THE STATIC LONGITUDINAL STABILITY AND STALLING CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE (BUAERO NO. 37974). S. A. Sjoberg and R. A. Champine. October 18, 1949. 16p. diagrs., photos., tab. (NACA RM L9H31a)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. STATIC LATERAL AND DIRECTIONAL STABILITY CHARACTERISTICS AS MEASURED IN SIDESLIPS AT MACH NUMBERS UP TO 0.87. S. A. Sjoberg. May 19, 1950. 29p. diagrs., photos., tab. (NACA RM L50C14)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. LATERAL CONTROL CHARACTERISTICS AS MEASURED IN ABRUPT AILERON ROLLS AT MACH NUMBERS UP TO 0.86. J. V. Wilmerding, W. H. Stillwell, and S. A. Sjoberg. July 20, 1950. 27p. diagrs., photos., tab. (NACA RM L50E17)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. MEASUREMENTS OF THE BUFFET BOUNDARY AND PEAK AIRPLANE NORMAL-FORCE COEFFICIENTS AT MACH NUMBERS UP TO 0.90. John P. Mayer and George M. Valentine. August 28, 1950. 31p. diagrs., photos., tab. (NACA RM L50E31)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. LOW-SPEED STALLING AND LIFT CHARACTERISTICS. W. H. Stillwell, J. V. Wilmerding, and R. A. Champine. September 5, 1950. 45p. diagrs., photos., tab. (NACA RM L50G10)

CALCULATIONS OF THE DYNAMIC LATERAL STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II AIRPLANE IN HIGH-SPEED FLIGHT FOR VARIOUS WING LOADINGS AND ALTITUDES. M. J. Queijo and Alex Goodman. October 3, 1950. 31p. diagrs., tabs. (NACA RM L50H16a)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS AT MACH NUMBERS UP TO 0.87. S. A. Sjoberg, James R. Peele, and John H. Griffith. January 17, 1951. 48p. diagrs., photos., tab. (NACA RM L50K13)

LIFT AND DRAG COEFFICIENTS FOR THE BELL X-1 AIRPLANE (8-PERCENT-THICK WING) IN POWER-OFF TRANSONIC FLIGHT. L. Robert Carman and John R. Carden. June 1951. 24p. diagrs., photo., tab. (NACA RM L51E08)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. DYNAMIC LATERAL STABILITY. W. H. Stillwell and J. V. Wilmerding. June 18, 1951. 36p. diagrs., photos., tabs. (NACA RM L51C23)

TABULATED PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS MEASURED ON THE WING OF THE BELL X-1 AIRPLANE IN AN UNACCELERATED LOW-SPEED STALL, IN PUSH-OVERS AT MACH NUMBERS OF 0.83 AND 0.99, AND IN A PULL-UP AT A MACH NUMBER OF 1.16. Ronald J. Knapp. September 1951. 53p. diagrs., photo., tabs. (NACA RM L51F25)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED STATIC AND ROTARY STABILITY DERIVATIVES OF A 0.13-SCALE MODEL OF THE DOUGLAS D-558-II AIRPLANE IN THE LANDING CONFIGURATION. M. J. Queijo and Evalyn G. Wells. August 1952. 17p. diagrs., photo., tab. (NACA RM L52G07)

INSTRUMENTATION AND CALIBRATION OF TECHNIQUE FOR FLIGHT CALIBRATION OF ANGLE-OF-ATTACK SYSTEMS ON AIRCRAFT. Norman M. McFadden, George R. Holden, and Jack W. Ratcliff. December 1952. 30p. diagrs., photos., tabs. (NACA RM A52I23)

FLIGHT MEASUREMENTS OF PRESSURES ON BASE AND REAR PART OF FUSELAGE OF THE BELL X-1 RESEARCH AIRPLANE AT TRANSONIC SPEEDS, INCLUDING POWER EFFECTS. Ronald J. Knapp and Wallace E. Johnson. January 1953. 31p. diagrs., photos. (NACA RM L52L01)

AN ANALYSIS OF THE LATERAL STABILITY OF THE DOUGLAS D-558-II AIRPLANE EQUIPPED WITH A YAW DAMPER, WITH SPECIAL REFERENCE TO THE EFFECT OF YAW-DAMPER RATE-GYRO SPIN-AXIS ORIENTATION. Ordway B. Gates, Jr., Albert A. Schy, and C. H. Woodling. March 1953. 36p. diagrs., tabs. (NACA RM L52K14a)

PRELIMINARY MEASUREMENTS OF STATIC LONGITUDINAL STABILITY AND TRIM FOR THE XF-92A DELTA-WING RESEARCH AIRPLANE IN SUBSONIC AND TRANSONIC FLIGHT. Thomas R. Sisk and John M. Mooney. March 1953. 19p. diagrs., photo., tab. (NACA RM L53B06)

FLIGHT-DETERMINED PRESSURE DISTRIBUTIONS OVER THE WING OF THE BELL X-1 RESEARCH AIRPLANE (10-PERCENT-THICK WING) AT SUBSONIC AND TRANSONIC SPEEDS. Ronald J. Knapp and Gareth H. Jordan. June 1953. 43p. diagrs., photo., tab. (NACA RM L53D20)

PRELIMINARY FLIGHT MEASUREMENTS OF THE DYNAMIC LONGITUDINAL STABILITY CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE. Euclid C. Holleman, John H. Evans, and William C. Triplett. June 1953. 17p. diagrs., tab. (NACA RM L53E14)

RESULTS OF MEASUREMENTS OF MAXIMUM LIFT AND BUFFETING INTENSITIES OBTAINED DURING FLIGHT INVESTIGATION OF THE NORTHROP X-4 RESEARCH AIRPLANE. Thomas F. Baker. August 1953. 22p. diagrs., photos., tab. (NACA RM L53G06)

HORIZONTAL-TAIL LOAD MEASUREMENTS AT TRANSONIC SPEEDS OF THE BELL X-1 RESEARCH AIRPLANE. John T. Rogers. September 1953. 23p. diagrs., photo., tab. (NACA RM L53F30)

WING LOADS ON THE BELL X-1 RESEARCH AIRPLANE (10-PERCENT-THICK WING) AS DETERMINED BY PRESSURE-DISTRIBUTION MEASUREMENTS IN FLIGHT AT SUBSONIC AND TRANSONIC SPEEDS. Ronald J. Knapp and Gareth H. Jordan. November 1953. 35p. diagrs., photo., tab. (NACA RM L53G14)

FUSELAGE PRESSURES MEASURED ON THE BELL X-1 RESEARCH AIRPLANE IN TRANSONIC FLIGHT. Ronald J. Knapp, Gareth H. Jordan, and Wallace E. Johnson. November 1953. 21p. diagrs., photo. (NACA RM L53I15)

A PRELIMINARY STUDY BY MEANS OF ELECTRICAL FREQUENCY-ANALYSIS TECHNIQUES OF THE RESPONSE OF AN AIRPLANE STRUCTURE DURING BUFFETING. John E. Yeates, Jr., and Jim Rogers Thompson. December 1953. 41p. diagrs., tab. (NACA RM L53G31)

CALCULATED LATERAL FREQUENCY RESPONSE AND LATERAL OSCILLATORY CHARACTERISTICS FOR SEVERAL HIGH-SPEED AIRPLANES IN VARIOUS FLIGHT CONDITIONS. Byron M. Jaquet. December 1953. 72p. diagrs., tabs. (NACA RM L53J01)

PRELIMINARY DRAG MEASUREMENTS OF THE CONSOLIDATED VULTEE XF-92A DELTA-WING AIRPLANE IN FLIGHT TESTS TO A MACH NUMBER OF 1.01. Donald R. Bellman and Thomas R. Sisk. January 1954. 21p. diagrs., photos., tab. (NACA RM L53J23)

A FLIGHT INVESTIGATION OF THE EFFECTS OF INCLINATION OF THE PRINCIPAL AXIS OF INERTIA ON THE DYNAMIC LATERAL STABILITY OF THE REPUBLIC XF-91 AIRPLANE. Thomas W. Finch. July 1954. 19p. diagrs., photos., tab. (NACA RM L53I28)

A FLIGHT EVALUATION OF THE STABILITY AND CONTROL OF THE X-4 SWEPT-WING SEMITAILLESS AIRPLANE. Melvin Sadoff and A. Scott Crossfield. August 1954. 48p. diagrs., photos., tab. (NACA RM H54G16)

FLIGHT INVESTIGATION OF THE EFFECTS OF HORIZONTAL-TAIL HEIGHT, MOMENT OF INERTIA, AND CONTROL EFFECTIVENESS ON THE PITCH-UP CHARACTERISTICS OF A 35° SWEPT-WING FIGHTER AIRPLANE AT HIGH SUBSONIC SPEEDS. Norman M. McFadden and Donovan R. Heinle. January 1955. 24p. diagrs., photos., tab. (NACA RM A54F21)

FLIGHT MEASUREMENTS OF ELEVON HINGE MOMENTS ON THE XF-92A DELTA-WING AIRPLANE. Clinton T. Johnson and Albert E. Kuhl. January 1955. 26p. diagrs., photos., tab. (NACA RM H54J25a)

THE EFFECT OF BLUNT-TRAILING-EDGE ELEVONS ON THE LONGITUDINAL AND LATERAL HANDLING QUALITIES OF THE X-4 SEMITAILLESS AIRPLANE. Edwin J. Saltzman. January 1955. 29p. diagrs., photos., tab. (NACA RM H54K03)

FLIGHT MEASUREMENTS AT TRANSONIC SPEEDS OF THE BUFFETING CHARACTERISTICS OF THE XF-92A DELTA-WING RESEARCH AIRPLANE. Thomas F. Baker and Wallace E. Johnson. April 1955. 32p. diagrs., photos., tab. (NACA RM H54L03)

THE EFFECTS OF FLEXIBILITY ON THE LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE OF A LARGE AIRPLANE. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. May 1955. 16p. diagrs. (NACA RM A55D14)

FLIGHT MEASUREMENTS OF WING LOADS ON THE CONVAIR XF-92A DELTA-WING AIRPLANE. Albert E. Kuhl and Clinton T. Johnson. May 1955. 37p. diagrs., photos., tab. (NACA RM H55D12)

STATISTICAL MEASUREMENTS OF LANDING-CONTACT CONDITIONS OF A HEAVY BOMBER. Norman S. Silsby and Eziaslav N. Harrin. June 1955. 22p. diagrs., tabs. (NACA RM L55E03)

A STUDY OF THE CORRELATION BETWEEN FLIGHT AND WIND-TUNNEL BUFFETING LOADS. Wilber B. Huston, A. Gerald Rainey, and Thomas F. Baker. July 1955. 15p. diagrs. (NACA RM L55E16b)

A LIMITED ANALYSIS OF BUFFETING EXPERIENCE IN FLIGHT BY A NORTH AMERICAN F-86A-1 AIRPLANE WITH AND WITHOUT LARGE EXTERNAL FUEL TANKS. Jim Rogers Thompson, Thomas C. O'Bryan, and Max C. Kurbjun. September 1955. 40p. diagrs., photo. (NACA RM L54J22)

FLIGHT MEASUREMENTS OF THE VERTICAL-TAIL LOADS ON THE CONVAIR XF-92A DELTA-WING AIRPLANE. Clinton T. Johnson. October 1955. 23p. diagrs., photos., tab. (NACA RM H55H25)

WIND-TUNNEL AND FLIGHT INVESTIGATIONS OF THE USE OF LEADING-EDGE AREA SUCTION FOR THE PURPOSE OF INCREASING THE MAXIMUM LIFT COEFFICIENT OF A 35° SWEPT-WING AIRPLANE. Curt A. Holzhauser and Richard S. Bray. 1956. ii, 24p. diagrs., photos., tabs. (NACA Rept. 1276. Supersedes RM A52G17; RM A55C07)

EFFECT OF AREA-SUCTION-TYPE BOUNDARY-LAYER CONTROL ON THE LANDING-APPROACH CHARACTERISTICS OF A 35° SWEPT-WING FIGHTER. George E. Cooper and Robert C. Innis. February 1956. 35p. diagrs., photos., tabs. (NACA RM A55K14)

LOW-SPEED LONGITUDINAL STABILITY AND LATERAL-CONTROL CHARACTERISTICS OF A MODEL OF A 40° SWEPT-WING FIGHTER-TYPE AIRPLANE AT A REYNOLDS NUMBER OF 9×10^{6}. Thomas V. Bollech and H. Neale Kelly. February 1956. 149p. diagrs., photo., tabs. (NACA RM L54B17)

PROBABILITY AND FREQUENCY CHARACTERISTICS OF SOME FLIGHT BUFFET LOADS. Wilber B. Huston and T. H. Skopinski. August 1956. 52p. diagrs., tabs. (NACA TN 3733)

AERODYNAMIC CHARACTERISTICS AND FLYING QUALITIES OF A TAILLESS TRIANGULAR-WING AIRPLANE CONFIGURATION AS OBTAINED FROM FLIGHTS OF ROCKET-PROPELLED MODELS AT TRANSONIC AND LOW SUPERSONIC SPEEDS. Grady L. Mitcham, Joseph E. Stevens, and Harry P. Norris. November 1956. 57p. diagrs., photos., tabs. (NACA TN 3753. Supersedes RM L9L07)

MEASUREMENT OF THE LONGITUDINAL MOMENT OF INERTIA OF A FLEXIBLE AIRPLANE. Henry A. Cole, Jr., and Frances L. Bennion. November 1956. 30p. diagrs., photos., tabs. (NACA TN 3870. Supersedes RM A55J21)

(1.7.1.3) PERFORMANCE

LIFT AND DRAG COEFFICIENTS FOR THE BELL X-1 AIRPLANE (8-PERCENT-THICK WING) IN POWER-OFF TRANSONIC FLIGHT. L. Robert Carman and John R. Carden. June 1951. 24p. diagrs., photo., tab. (NACA RM L51E08)

PERFORMANCE COMPARISON OF THREE CANARD-TYPE RAM-JET MISSILE CONFIGURATIONS AT MACH NUMBERS FROM 1.5 TO 2.0. Evan A. Fradenburgh and Emil J. Kremzier. August 1953. 31p. diagrs., tabs. (NACA RM E53F11)

CALCULATED LATERAL FREQUENCY RESPONSE AND LATERAL OSCILLATORY CHARACTERISTICS FOR SEVERAL HIGH-SPEED AIRPLANES IN VARIOUS FLIGHT CONDITIONS. Byron M. Jaquet. December 1953. 72p. diagrs., tabs. (NACA RM L53J01)

PRELIMINARY DRAG MEASUREMENTS OF THE CONSOLIDATED VULTEE XF-92A DELTA-WING AIRPLANE IN FLIGHT TESTS TO A MACH NUMBER OF 1.01. Donald R. Bellman and Thomas R. Sisk. January 1954. 21p. diagrs., photos., tab. (NACA RM L53J23)

INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL WING-PROPELLER COMBINATION AND OF THE WING AND PROPELLER SEPARATELY AT ANGLES OF ATTACK UP TO 90°. Richard E. Kuhn and John W. Draper. 1956. ii, 40p. diagrs., photos., tab. (NACA Rept. 1263. Supersedes TN 3304)

FLIGHT TECHNIQUES FOR DETERMINING AIRPLANE DRAG AT HIGH MACH NUMBERS. De E. Beeler, Donald R. Bellman, and Edwin J. Saltzman. (Presented to Flight Test Panel of Advisory Group for Aeronautical Research and Development, Brussels, Belgium, August 27-31, 1956). August 1956. 40p. diagrs., photos. (NACA TN 3821)

EXPLORATORY INVESTIGATION OF THE EFFECTIVENESS OF BIPLANE WINGS WITH LARGE-CHORD DOUBLE SLOTTED FLAPS IN REDIRECTING A PROPELLER SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Robert H. Kirby. October 1956. 22p. diagrs., tab. (NACA TN 3800)

INVESTIGATION OF THE EFFECTIVENESS OF BOUNDARY-LAYER CONTROL BY BLOWING OVER A COMBINATION OF SLIDING AND PLAIN FLAPS IN DEFLECTING A PROPELLER SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Kenneth P. Spreemann and Richard E. Kuhn. December 1956. 44p. diagrs., photo. (NACA TN 3904)

EFFECT OF PROPELLER LOCATION AND FLAP DEFLECTION ON THE AERODYNAMIC CHARACTERISTICS OF A WING-PROPELLER COMBINATION FOR ANGLES OF ATTACK FROM 0° TO 80°. William A. Newsom, Jr. January 1957. 45p. diagrs. (NACA TN 3917)

INVESTIGATION OF EFFECTIVENESS OF A WING EQUIPPED WITH A 50-PERCENT-CHORD SLIDING FLAP, A 30-PERCENT-CHORD SLOTTED FLAP, AND A 30-PERCENT-CHORD SLAT IN DEFLECTING PROPELLER SLIPSTREAMS DOWNWARD FOR VERTICAL TAKE-OFF. Richard E. Kuhn. January 1957. 39p. diagrs., photo., tab. (NACA TN 3919)

WIND-TUNNEL INVESTIGATION OF EFFECT OF PROPELLER SLIPSTREAMS ON AERODYNAMIC CHARACTERISTICS OF A WING EQUIPPED WITH A 50-PERCENT-CHORD SLIDING FLAP AND A 30-PERCENT-CHORD SLOTTED FLAP. Richard E. Kuhn and William C. Hayes, Jr. February 1957. 72p. diagrs., photo., tab. (NACA TN 3918)

(1.7.2) MISSILES

OBSERVATIONS OF UNSTEADY FLOW PHENOMENA FOR AN INCLINED BODY FITTED WITH STABILIZING FINS. Merrill H. Mead. January 1952. 23p. diagrs., photos. (NACA RM A51K05)

THREE-DEGREE-OF-FREEDOM EVALUATION OF THE LONGITUDINAL TRANSFER FUNCTIONS OF A SUPERSONIC CANARD MISSILE CONFIGURATION INCLUDING CHANGES IN FORWARD SPEED. Ernest C. Seaberg. April 1954. 29p. diagrs., photo., tabs. (NACA RM L54C02)

THEORETICAL INVESTIGATION BASED ON EXPERIMENTAL FREQUENCY-RESPONSE MEASUREMENTS OF AN AUTOMATIC ALTITUDE CONTROL IN COMBINATION WITH A SUPERSONIC MISSILE CONFIGURATION. Ernest C. Seaberg, Edward S. Geller, and William W. Willoughby. August 1954. 28p. diagrs., photos. (NACA RM L54F04)

THE EROSION OF METEORS AND HIGH-SPEED VEHICLES IN THE UPPER ATMOSPHERE. C. Frederick Hansen. March 1957. 38p. diagrs., tab. (NACA TN 3962)

(1.7.2.1) COMPONENTS IN COMBINATION

FLIGHT INVESTIGATION OF FLUTTER MODELS WITH 1/10-SCALE DOUGLAS D-558-2 WING PANELS. Jerome M. Teitelbaum. February 16, 1949. 15p. diagrs., photos., tab. (NACA RM L9A06)

FLIGHT INVESTIGATION FROM HIGH SUBSONIC TO SUPERSONIC SPEEDS TO DETERMINE THE ZERO-LIFT DRAG OF A TRANSONIC RESEARCH VEHICLE HAVING WINGS OF 45° SWEEPBACK, ASPECT RATIO 4, TAPER RATIO 0.6, AND NACA 65A006 AIRFOIL SECTIONS. Ellis Katz. October 27, 1949. 16p. diagrs., photos., tab. (NACA RM L9H30)

COMPARISON OF LARGE-SCALE FLIGHT MEASUREMENTS OF ZERO-LIFT DRAG AT MACH NUMBERS FROM 0.9 TO 1.7 OF TWO WING-BODY COMBINATIONS HAVING SIMILAR 60° TRIANGULAR WINGS WITH NACA 65A003 SECTIONS. Eugene D. Schult. October 25, 1950. 15p. diagrs., photo., tab. (NACA RM L50I22)

DAMPING IN ROLL OF A MISSILE CONFIGURATION WITH A MODIFIED TRIANGULAR WING AND A CRUCIFORM TAIL AT A MACH NUMBER OF 1.52. Richard Scherrer and David H. Dennis. March 6, 1951. 23p. diagrs., photo., tab. (NACA RM A51A03)

DATA PRESENTATION OF FORCE CHARACTERISTICS OF SEVERAL ENGINE-STRUT-BODY CONFIGURATIONS AT MACH NUMBERS OF 1.8 AND 2.0. Robert T. Madden and Emil J. Kremzier. August 1951. 32p. diagrs. (NACA RM E51E29)

EXPERIMENTAL AND THEORETICAL STUDY OF FACTORS INFLUENCING THE LONGITUDINAL STABILITY OF AN AIR-TO-AIR MISSILE AT A MACH NUMBER OF 1.4. S. Sherman Edwards. January 1952. 51p. diagrs., photo., tabs. (NACA RM A51J19)

INFLUENCE OF FUSELAGE AND CANARD-TYPE CONTROL SURFACE ON THE FLOW FIELD ADJACENT TO A REARWARD FUSELAGE STATION AT A MACH NUMBER OF 2.0 - DATA PRESENTATION. Evan A. Fradenburgh, Leonard J. Obery, and John F. Mello. January 1952. 25p. diagrs., photos. (NACA RM E51K05)

AERODYNAMIC INTERFERENCE EFFECTS ON NORMAL AND AXIAL FORCE COEFFICIENTS OF SEVERAL ENGINE-STRUT-BODY CONFIGURATIONS AT MACH NUMBERS OF 1.8 AND 2.0. Emil J. Kremzier and Murray Dryer. April 1952. 35p. diagrs., tab. (NACA RM E52B21)

INFLUENCE OF A CANARD-TYPE CONTROL SURFACE ON THE INTERNAL AND EXTERNAL PERFORMANCE CHARACTERISTICS OF NACELLE-MOUNTED SUPERSONIC DIFFUSERS (CONICAL CENTERBODY) AT A REARWARD BODY STATION FOR A MACH NUMBER OF 2.0. L. J. Obery and H. S. Krasnow. August 1952. 24p. diagrs. (NACA RM E52F16)

EXPERIMENTAL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF AN AIR-TO-AIR MISSILE EMPLOYING CRUCIFORM WINGS AND TAIL OF RECTANGULAR PLAN FORM AT MACH NUMBERS OF 1.4 AND 1.9. Merrill H. Mead. February 1953. 31p. diagrs. (NACA RM A52K14)

FLIGHT INVESTIGATION OF A SUPERSONIC CANARD MISSILE EQUIPPED WITH AN AUXILIARY DAMPING-IN-PITCH CONTROL SYSTEM. Martin T. Moul. February 1953. 31p. diagrs., photos., tabs. (NACA RM L52K14b)

INFLUENCE OF END PLATES ON LIFT AND FLOW FIELD OF A CANARD-TYPE CONTROL SURFACE AT A MACH NUMBER OF 2.00. George A. Wise. March 1953. 14p. photos., diagrs. (NACA RM E53A02)

PERFORMANCE COMPARISON OF THREE CANARD-TYPE RAM-JET MISSILE CONFIGURATIONS AT MACH NUMBERS FROM 1.5 TO 2.0. Evan A. Fradenburgh and Emil J. Kremzier. August 1953. 31p. diagrs., tabs. (NACA RM E53F11)

LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS IN SIDESLIP OF A DELTA-WING-FUSELAGE MODEL WITH HORN-BALANCE-TYPE AILERONS AND WITH AND WITHOUT NACELLES. William I. Scallion. August 1953. 31p. diagrs., photo., tabs. (NACA RM L53G09b)

THE INFLUENCE OF THE CONTROL-SURFACE-SERVO NATURAL FREQUENCY UPON THE TRANSIENT CHARACTERISTICS OF A FLIGHT-PATH-ANGLE CONTROL SYSTEM INCORPORATING A SUPERSONIC MISSILE. Anthony L. Passera and Thomas F. Bridgland, Jr. December 1953. 22p. diagrs., photo., tabs. (NACA RM L53J15)

EFFECT ON TRANSONIC AND SUPERSONIC DRAG OF A FUSELAGE PROTUBERANCE DESIGNED TO IMPROVE THE AREA DISTRIBUTION OF AN ESSENTIALLY UNSWEPT WING-FUSELAGE COMBINATION. Carl A. Sandahl. January 1954. 10p. diagrs., photos., tab. (NACA RM L53K10)

FLIGHT INVESTIGATION TO DETERMINE LIFT AND DRAG CHARACTERISTICS OF A CANARD RAM-JET MISSILE CONFIGURATION IN THE MACH NUMBER RANGE OF 0.8 TO 2.0. Abraham A. Gammal and Thomas L. Kennedy. June 1954. 20p. diagrs., photos. (NACA RM L54D28)

A SPECIAL METHOD FOR FINDING BODY DISTORTIONS THAT REDUCE THE WAVE DRAG OF WING AND BODY COMBINATIONS AT SUPERSONIC SPEEDS. Harvard Lomax and Max. A. Heaslet. 1956. ii, 38p. diagrs., tabs. (NACA Rept. 1282. Supersedes RM A55B16)

THEORY OF WING-BODY DRAG AT SUPERSONIC SPEEDS. Robert T. Jones. 1956. ii, 7p. diagrs. (NACA Rept. 1284. Supersedes RM A53H18a)

GENERAL THEORY OF WAVE-DRAG REDUCTION FOR COMBINATIONS EMPLOYING QUASI-CYLINDRICAL BODIES WITH AN APPLICATION TO SWEPT-WING AND BODY COMBINATIONS. Jack N. Nielsen and William C. Pitts. September 1956. 79p. diagrs. (NACA TN 3722. Supersedes RM A55B07)

SIMILITUDE RELATIONS FOR FREE-MODEL WIND-TUNNEL STUDIES OF STORE-DROPPING PROBLEMS. Carl A. Sandahl and Maxime A. Faget. January 1957. 26p. diagrs., photos., tab. (NACA TN 3907)

FLIGHT INVESTIGATION OF A ROLL-STABILIZED MISSILE CONFIGURATION AT VARYING ANGLES OF ATTACK AT MACH NUMBERS BETWEEN 0.8 AND 1.79. Jacob Zarovsky and Robert A. Gardiner. January 1957. 36p. diagrs., photos., tab. (NACA TN 3915. Supersedes RM L50H21)

TABLES OF CHARACTERISTIC FUNCTIONS FOR SOLVING BOUNDARY-VALUE PROBLEMS OF THE WAVE EQUATION WITH APPLICATION TO SUPERSONIC INTERFERENCE. Jack N. Nielsen. February 1957. 245p. diagrs., tabs. (NACA TN 3873)

THEORETICAL INVESTIGATION OF THE EFFECTS OF CONFIGURATION CHANGES ON THE CENTER-OF-PRESSURE SHIFT OF A BODY-WING-TAIL COMBINATION DUE TO ANGLE OF ATTACK AND MACH NUMBER AT TRANSONIC AND SUPERSONIC SPEEDS. J. Richard Spahr. May 1957. 43p. diagrs. (NACA TN 3966. Supersedes RM A55F02)

(1.7.2.1.1) Wing-Body

FLIGHT INVESTIGATION FROM HIGH SUBSONIC TO SUPERSONIC SPEEDS TO DETERMINE THE ZERO-LIFT DRAG OF A TRANSONIC RESEARCH VEHICLE HAVING WINGS OF 45° SWEEPBACK, ASPECT RATIO 4, TAPER RATIO 0.6, AND NACA 65A006 AIRFOIL SECTIONS. Ellis Katz. October 27, 1949. 16p. diagrs., photos., tab. (NACA RM L9H30)

FLIGHT INVESTIGATION AT MACH NUMBERS FROM 0.8 TO 1.4 TO DETERMINE THE ZERO-LIFT DRAG OF WINGS WITH "M" AND "W" PLAN FORMS. Ellis Katz, Edward T. Marley, and William B. Pepper. September 18, 1950. 23p. diagrs., photos., tab. (NACA RM L50G31)

COMPARISON OF LARGE-SCALE FLIGHT MEASUREMENTS OF ZERO-LIFT DRAG AT MACH NUMBERS FROM 0.9 TO 1.7 OF TWO WING-BODY COMBINATIONS HAVING SIMILAR 60° TRIANGULAR WINGS WITH NACA 65A003 SECTIONS. Eugene D. Schult. October 25, 1950. 15p. diagrs., photo., tab. (NACA RM L50I22)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TAPERED WING OF ASPECT RATIO 3.1 WITH 3-PERCENT-THICK, BICONVEX SECTION. David E. Reese and E. Ray Phelps. January 30, 1951. 26p. diagrs., photo. (NACA RM A50K28)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0008-63 SECTION. Donald W. Smith and John C. Heitmeyer. February 1, 1951. 22p. diagrs., photo. (NACA RM A50K20)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 SECTION. Donald W. Smith and John C. Heitmeyer. February 1, 1951. 23p. diagrs., photo. (NACA RM A50K21)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH NACA 0005-63 SECTION. John C. Heitmeyer and Jack D. Stephenson. February 2, 1951. 21p. diagrs., photo. (NACA RM A50K24)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0003-63 SECTION. John C. Heitmeyer and Willard G. Smith. February 2, 1951. 22p. diagrs., photo. (NACA RM A50K24a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TRIANGULAR WING OF ASPECT RATIO 4 WITH NACA 0005-63 THICKNESS DISTRIBUTION, CAMBERED AND TWISTED FOR TRAPEZOIDAL SPAN LOAD DISTRIBUTION. E. Ray Phelps and Willard G. Smith. February 2, 1951. 23p. diagrs., photo., tab. (NACA RM A50K24b)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 THICKNESS DISTRIBUTION, CAMBERED AND TWISTED FOR A TRAPEZOIDAL SPAN LOAD DISTRIBUTION. Willard G. Smith and E. Ray Phelps. February 5, 1951. 21p. diagrs., photo., tab. (NACA RM A50K27a)

EXPERIMENTAL PRESSURE DISTRIBUTIONS OVER TWO WING-BODY COMBINATIONS AT MACH NUMBER 1.9. Barry Moskowitz and Stephen H. Maslen. February 5, 1951. 31p. diagrs., photos. (NACA RM E50J09)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH 3-PERCENT-THICK, BICONVEX SECTION. John C. Heitmeyer. June 8, 1951. 26p. diagrs., photo. (NACA RM A51D30)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH 3-PERCENT-THICK ROUNDED NOSE SECTION. John C. Heitmeyer and Ronald C. Hightower. August 1951. 17p. diagrs. (NACA RM A51F21)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 3 WITH NACA 0003-63 SECTION. John C. Heitmeyer. September 1951. 20p. diagrs. (NACA RM A51H02)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE 45° SWEPT-BACK WING OF ASPECT RATIO 3, TAPER RATIO 0.4 WITH 3-PERCENT-THICK, BICONVEX SECTION. John C. Heitmeyer. September 1951. 20p. diagrs. (NACA RM A51H10)

EXPERIMENTAL AND THEORETICAL STUDY OF THE EFFECTS OF BODY SIZE ON THE AERODYNAMIC CHARACTERISTICS OF AN ASPECT RATIO 3.0 WING-BODY COMBINATION. Edward J. Hopkins and Hubert C. Carel. October 1951. 52p. diagrs., photos., tabs. (NACA RM A51G24)

EXPERIMENTAL AND THEORETICAL STUDY OF FACTORS INFLUENCING THE LONGITUDINAL STABILITY OF AN AIR-TO-AIR MISSILE AT A MACH NUMBER OF 1.4. S. Sherman Edwards. January 1952. 51p. diagrs., photo., tabs. (NACA RM A51J19)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - AN INVESTIGATION AT LARGE REYNOLDS NUMBERS OF THE LOW-SPEED CHARACTERISTICS OF SEVERAL WING-BODY COMBINATIONS. Donald W. Smith, Harry H. Shibata, and Ralph Selan. February 1952. 56p. diagrs., photos., tab. (NACA RM A51K28)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.70 TO 1.37 OF ROCKET-PROPELLED MODELS HAVING A MODIFIED TRIANGULAR WING. Rowe Chapman, Jr., and John D. Morrow. May 1952. 35p. diagrs., photos., tab. (NACA RM L52A31)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TAPERED WING OF ASPECT RATIO 3.1 WITH 3-PERCENT-THICK ROUNDED-NOSE SECTION. John C. Heitmeyer. July 1952. 25p. diagrs., tabs. (NACA RM A52D23)

THE USE OF THE ROLLED-UP VORTEX CONCEPT FOR PREDICTING WING-TAIL INTERFERENCE AND COMPARISON WITH EXPERIMENT AT MACH NUMBER OF 1.62 FOR A SERIES OF MISSILE CONFIGURATIONS HAVING TANDEM CRUCIFORM LIFTING SURFACES. Carl E. Grigsby. September 1952. 41p. diagrs., photos. (NACA RM L52H05)

THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° DELTA-WING MISSILE HAVING HALF-DELTA TIP CONTROLS AS OBTAINED FROM A FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS. Martin T. Moul and Hal T. Baber, Jr. October 1952. 35p. diagrs., photos. (NACA RM L52H14)

EXPERIMENTAL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF AN AIR-TO-AIR MISSILE EMPLOYING CRUCIFORM WINGS AND TAIL OF RECTANGULAR PLAN FORM AT MACH NUMBERS OF 1.4 AND 1.9. Merrill H. Mead. February 1953. 31p. diagrs. (NACA RM A52K14)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - COMPARISON OF THREE WINGS OF ASPECT RATIO 2 OF RECTANGULAR, SWEPT-BACK, AND TRIANGULAR PLAN FORM, INCLUDING EFFECTS OF THICKNESS DISTRIBUTION. Ronald C. Hightower. February 1953. 30p. diagrs., tabs. (NACA RM A52L02)

FREE-FLIGHT LONGITUDINAL-STABILITY INVESTIGATION INCLUDING SOME EFFECTS OF WING ELASTICITY FROM MACH NUMBERS OF 0.85 TO 1.34 OF A TAILLESS MISSILE CONFIGURATION HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 5.5. Richard G. Arbic and Warren Gillespie, Jr. August 1953. 30p. diagrs., photos., tabs. (NACA RM L53F18)

LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS IN SIDESLIP OF A DELTA-WING-FUSELAGE MODEL WITH HORN-BALANCE-TYPE AILERONS AND WITH AND WITHOUT NACELLES. William I. Scallion. August 1953. 31p. diagrs., photo., tabs. (NACA RM L53G09b)

QUASI-CYLINDRICAL THEORY OF WING-BODY INTERFERENCE AT SUPERSONIC SPEEDS AND COMPARISON WITH EXPERIMENT. Jack N. Nielsen. 1955. ii, 56p. diagrs., tabs. (NACA Rept. 1252. Supersedes TN 2677; TN 3128)

A THEORETICAL STUDY OF THE LIFTING EFFICIENCY AT SUPERSONIC SPEEDS OF WINGS UTILIZING INDIRECT LIFT INDUCED BY VERTICAL SURFACES. Vernon J. Rossow. March 1956. ii, 59p. diagrs. (NACA RM A55L08)

GENERAL THEORY OF WAVE-DRAG REDUCTION FOR COMBINATIONS EMPLOYING QUASI-CYLINDRICAL BODIES WITH AN APPLICATION TO SWEPT-WING AND BODY COMBINATIONS. Jack N. Nielsen and William C. Pitts. September 1956. 79p. diagrs. (NACA TN 3722. Supersedes RM A55B07)

DRAG INTERFERENCE BETWEEN A POINTED CYLINDRICAL BODY AND TRIANGULAR WINGS OF VARIOUS ASPECT RATIOS AT MACH NUMBERS OF 1.50 AND 2.02. Elliott D. Katzen and George E. Kaattari. November 1956. 41p. diagrs., photos., tabs. (NACA TN 3794. Supersedes RM A51C27)

LIFT AND PITCHING-MOMENT INTERFERENCE BETWEEN A POINTED CYLINDRICAL BODY AND TRIANGULAR WINGS OF VARIOUS ASPECT RATIOS AT MACH NUMBERS OF 1.50 AND 2.02. Jack N. Nielsen, Elliott D. Katzen, and Kenneth K. Tang. December 1956. 49p. diagrs., photos., tabs. (NACA TN 3795. Supersedes RM A50F06)

(1.7.2.1.2) Tail-Body

FLIGHT INVESTIGATION FROM HIGH SUBSONIC TO SUPERSONIC SPEEDS TO DETERMINE THE ZERO-LIFT DRAG OF A TRANSONIC RESEARCH VEHICLE HAVING WINGS OF 45° SWEEPBACK, ASPECT RATIO 4, TAPER RATIO 0.6, AND NACA 65A006 AIRFOIL SECTIONS. Ellis Katz. October 27, 1949. 16p. diagrs., photos., tab. (NACA RM L9H30)

EXPERIMENTAL AND THEORETICAL STUDY OF FACTORS INFLUENCING THE LONGITUDINAL STABILITY OF AN AIR-TO-AIR MISSILE AT A MACH NUMBER OF 1.4. S. Sherman Edwards. January 1952. 51p. diagrs., photo., tabs. (NACA RM A51J19)

OBSERVATIONS OF UNSTEADY FLOW PHENOMENA FOR AN INCLINED BODY FITTED WITH STABILIZING FINS. Merrill H. Mead. January 1952. 23p. diagrs., photos. (NACA RM A51K05)

SOME EFFECTS OF FIN PLAN FORM ON THE STATIC STABILITY OF FIN-BODY COMBINATIONS AT MACH NUMBER 4.06. Edward F. Ulmann and Robert W. Dunning. July 1952. 20p. diagrs., photos. (NACA RM L52D15a)

THE USE OF THE ROLLED-UP VORTEX CONCEPT FOR PREDICTING WING-TAIL INTERFERENCE AND COMPARISON WITH EXPERIMENT AT MACH NUMBER OF 1.62 FOR A SERIES OF MISSILE CONFIGURATIONS HAVING TANDEM CRUCIFORM LIFTING SURFACES. Carl E. Grigsby. September 1952. 41p. diagrs., photos. (NACA RM L52H05)

EXPERIMENTAL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF AN AIR-TO-AIR MISSILE EMPLOYING CRUCIFORM WINGS AND TAIL OF RECTANGULAR PLAN FORM AT MACH NUMBERS OF 1.4 AND 1.9. Merrill H. Mead. February 1953. 31p. diagrs. (NACA RM A52K14)

BUFFETING OF A VERTICAL TAIL ON AN INCLINED BODY AT SUPERSONIC MACH NUMBERS. Forrest E. Gowen. March 1953. 35p. diagrs., photos., tab. (NACA RM A53A09)

EFFECT OF VARIATIONS IN REYNOLDS NUMBER ON THE AERODYNAMIC CHARACTERISTICS OF THREE BOMB OR STORE SHAPES AT A MACH NUMBER OF 1.62 WITH AND WITHOUT FINS. Robert W. Rainey. June 1953. 40p. diagrs., photos., tab. (NACA RM L53D27)

AN INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE PRESSURE DISTRIBUTIONS ON A 45° SWEPTBACK VERTICAL TAIL IN SIDESLIP WITH AND WITHOUT A 45° SWEPTBACK HORIZONTAL TAIL LOCATED ON THE FUSELAGE CENTER LINE. Harleth G. Wiley and William C. Moseley, Jr. November 1954. 81p. diagrs., photos., 7 tabs. (NACA RM L54H23)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE PRESSURE DISTRIBUTIONS ON A 45° SWEPTBACK VERTICAL TAIL IN SIDESLIP WITH A 45° SWEPTBACK HORIZONTAL TAIL MOUNTED AT 50-PERCENT AND 100-PERCENT VERTICAL-TAIL SPAN. Harleth G. Wiley and William C. Moseley, Jr. November 1954. 89p. diagrs., photos., tabs. (NACA RM L54I08)

ZERO-LIFT DRAG OF A SERIES OF BOMB SHAPES AT MACH NUMBERS FROM 0.60 TO 1.10. William E. Stoney, Jr., and John F. Royall. July 1956. 12p. diagrs., photos., tabs. (NACA RM L56D16)

CALCULATION OF THE FORCES AND MOMENTS ON A SLENDER FUSELAGE AND VERTICAL FIN PENETRATING LATERAL GUSTS. John M. Eggleston. October 1956. 20p. diagrs., tab. (NACA TN 3805)

(1.7.2.1.3) Jet Interference

NOTE ON SOME OBSERVED EFFECTS OF ROCKET-MOTOR OPERATION ON THE BASE PRESSURES OF BODIES IN FREE FLIGHT. Paul E. Purser, Joseph G. Thibodaux, and H. Herbert Jackson. November 16, 1950. 28p. diagrs., tabs. (NACA RM L50I18)

JET EFFECTS ON PRESSURES AND DRAGS OF BODIES. Warren Gillespie, Jr. November 1951. 12p. diagrs. (NACA RM L51J29)

INVESTIGATION OF THE JET EFFECTS ON A FLAT SURFACE DOWNSTREAM OF THE EXIT OF A SIMULATED TURBOJET NACELLE AT A FREE-STREAM MACH NUMBER OF 2.02. Walter E. Bressette. June 1954. 38p. diagrs., photos., tab. (NACA RM L54E05a)

AN INVESTIGATION OF JET EFFECTS ON ADJACENT SURFACES. Walter E. Bressette and Maxime A. Faget. June 1955. 13p. diagrs. (NACA RM L55E06)

AN EXPERIMENTAL INVESTIGATION OF STING-SUPPORT EFFECTS ON DRAG AND A COMPARISON WITH JET EFFECTS AT TRANSONIC SPEEDS. Maurice S. Cahn. September 1956. 67p. diagrs., tabs. (NACA RM L56F18a)

AERODYNAMIC INVESTIGATION OF A PARABOLIC BODY OF REVOLUTION AT MACH NUMBER OF 1.92 AND SOME EFFECTS OF AN ANNULAR SUPERSONIC JET EXHAUSTING FROM THE BASE. Eugene S. Love. September 1956. 62p. diagrs., photos., tab. (NACA TN 3709. Supersedes RM L9K09)

WIND-TUNNEL TECHNIQUE FOR SIMULTANEOUS SIMULATION OF EXTERNAL FLOW FIELD ABOUT NACELLE INLET AND EXIT AIRSTREAMS AT SUPERSONIC SPEEDS. Gerald W. Englert and Roger W. Luidens. January 1957. 25p. diagrs. (NACA TN 3881)

(1.7.2.1.4)
Wing-Tail-Body

EXPERIMENTAL AND THEORETICAL STUDY OF FACTORS INFLUENCING THE LONGITUDINAL STABILITY OF AN AIR-TO-AIR MISSILE AT A MACH NUMBER OF 1.4. S. Sherman Edwards. January 1952. 51p. diagrs., photo., tabs. (NACA RM A51J19)

FLIGHT INVESTIGATION FROM MACH NUMBER 0.8 TO MACH NUMBER 2.0 TO DETERMINE SOME EFFECTS OF WING-TO-TAIL DISTANCE ON THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° DELTA-WING-CANARD MISSILE. Clarence A. Brown, Jr., and Reginald R. Lundstrom. June 1952. 42p. diagrs., photos. (NACA RM L52C26)

THE USE OF THE ROLLED-UP VORTEX CONCEPT FOR PREDICTING WING-TAIL INTERFERENCE AND COMPARISON WITH EXPERIMENT AT MACH NUMBER OF 1.62 FOR A SERIES OF MISSILE CONFIGURATIONS HAVING TANDEM CRUCIFORM LIFTING SURFACES. Carl E. Grigsby. September 1952. 41p. diagrs., photos. (NACA RM L52H05)

EXPERIMENTAL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF AN AIR-TO-AIR MISSILE EMPLOYING CRUCIFORM WINGS AND TAIL OF RECTANGULAR PLAN FORM AT MACH NUMBERS OF 1.4 AND 1.9. Merrill H. Mead. February 1953. 31p. diagrs. (NACA RM A52K14)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Maurice D. White. June 1955. 39p. diagrs., photos., tabs. (NACA RM A55D18)

THEORETICAL LIFT DUE TO WING INCIDENCE OF SLENDER WING-BODY-TAIL COMBINATIONS AT ZERO ANGLE OF ATTACK. Alvin H. Sacks. November 1956. 35p. diagrs. (NACA TN 3796)

AERODYNAMIC INTERFERENCE OF SLENDER WING-TAIL COMBINATIONS. Alvin H. Sacks. January 1957. 81p. diagrs., photos. (NACA TN 3725)

THEORETICAL INVESTIGATION OF THE EFFECTS OF CONFIGURATION CHANGES ON THE CENTER-OF-PRESSURE SHIFT OF A BODY-WING-TAIL COMBINATION DUE TO ANGLE OF ATTACK AND MACH NUMBER AT TRANSONIC AND SUPERSONIC SPEEDS. J. Richard Spahr. May 1957. 43p. diagrs. (NACA TN 3966. Supersedes RM A55F02)

(1.7.2.2)
SPECIFIC MISSILES

FLIGHT-TEST EVALUATION OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF 0.5-SCALE MODELS OF THE LARK PILOTLESS-AIRCRAFT CONFIGURATION. David G. Stone. February 6, 1948. 60p. diagrs., photos., tabs. (NACA RM L7I26)

WIND-TUNNEL INVESTIGATION OF A RAM-JET CANARD MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.60. M. Leroy Spearman and Ross B. Robinson. August 1952. 63p. diagrs., photo., tabs. (NACA RM L52E15)

ROCKET-MODEL INVESTIGATION TO DETERMINE THE FORCE AND HINGE-MOMENT CHARACTERISTICS OF A HALF-DELTA TIP CONTROL ON A 59° SWEPTBACK DELTA WING BETWEEN MACH NUMBERS OF 0.55 AND 1.43. C. William Martz, James D. Church, and John W. Goslee. October 1952. 53p. diagrs., photos., tab. (NACA RM L52H06)

PERFORMANCE COMPARISON OF THREE CANARD-TYPE RAM-JET MISSILE CONFIGURATIONS AT MACH NUMBERS FROM 1.5 TO 2.0. Evan A. Fradenburgh and Emil J. Kremzier. August 1953. 31p. diagrs., tabs. (NACA RM E53F11)

FREE-FLIGHT LONGITUDINAL-STABILITY INVESTIGATION INCLUDING SOME EFFECTS OF WING ELASTICITY FROM MACH NUMBERS OF 0.85 TO 1.34 OF A TAILLESS MISSILE CONFIGURATION HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 5.5. Richard G. Arbic and Warren Gillespie, Jr. August 1953. 30p. diagrs., photos., tabs. (NACA RM L53F18)

ROCKET-POWERED-MODEL INVESTIGATION OF THE HINGE-MOMENT AND NORMAL-FORCE CHARACTERISTICS OF A HALF-DIAMOND TIP CONTROL ON A 60° SWEPTBACK DIAMOND WING BETWEEN MACH NUMBERS OF 0.5 AND 1.3. James D. Church. April 1954. 30p. diagrs., photos., tab. (NACA RM L54C10)

TURBULENT CONVECTIVE HEAT-TRANSFER COEFFICIENTS MEASURED FROM FLIGHT TESTS OF FOUR RESEARCH MODELS (NACA RM-10) AT MACH NUMBERS FROM 1.0 TO 3.6. Leo T. Chauvin and Joseph P. Maloney. March 1955. 30p. diagrs., photo., tabs. (NACA RM L54L15)

FLIGHT INVESTIGATION OF THE PERFORMANCE OF A TWO-STAGE SOLID-PROPELLANT NIKE-DEACON (DAN) METEOROLOGICAL SOUNDING ROCKET. Robert H. Heitkotter. July 1956. 21p. diagrs., photos. (NACA TN 3739)

(1.7.3) ROTATING-WING AIRCRAFT

(1.7.3.1) AUTOGIROS

CHARTS FOR ESTIMATING PERFORMANCE OF HIGH-PERFORMANCE HELICOPTERS. Alfred Gessow and Robert J. Tapscott. 1956. ii, 33p. diagrs. (NACA Rept. 1266. Supersedes TN 3323; TN 3482)

EQUATIONS AND PROCEDURES FOR NUMERICALLY CALCULATING THE AERODYNAMIC CHARACTERISTICS OF LIFTING ROTORS. Alfred Gessow. October 1956. 21p. diagr., tab. (NACA TN 3747)

(1.7.3.2) HELICOPTERS

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF VARIOUS PARAMETERS INCLUDING TIP MACH NUMBER ON THE FLUTTER OF SOME MODEL HELICOPTER ROTOR BLADES. George W. Brooks and John E. Baker. June 1953. 68p. diagrs., photos., tabs. (NACA RM L53D24)

ASPECTS OF INTERNAL-FLOW-SYSTEM DESIGN FOR HELICOPTER PROPULSIVE UNITS. John R. Henry. September 1954. 24p. diagrs. (NACA RM L54F29)

STUDIES OF THE SPEED STABILITY OF A TANDEM HELICOPTER IN FORWARD FLIGHT. Robert J. Tapscott and Kenneth B. Amer. 1956. ii, 12p. diagrs., photos., tab. (NACA Rept. 1260. Supersedes RM L53F15a)

CHARTS FOR ESTIMATING PERFORMANCE OF HIGH-PERFORMANCE HELICOPTERS. Alfred Gessow and Robert J. Tapscott. 1956. ii, 33p. diagrs. (NACA Rept. 1266. Supersedes TN 3323; TN 3482)

AN EXPERIMENTAL INVESTIGATION OF A FLAT RAM-JET ENGINE ON A HELICOPTER ROTOR. Robert D. Powell, Jr., and James P. Shivers. January 1956. 27p. diagrs., photo. (NACA RM L55F28)

STATIC-THRUST MEASUREMENTS OF THE AERODYNAMIC LOADING ON A HELICOPTER ROTOR BLADE. John P. Rabbott, Jr. July 1956. 22p. diagrs., photos. (NACA TN 3688)

EQUATIONS AND PROCEDURES FOR NUMERICALLY CALCULATING THE AERODYNAMIC CHARACTERISTICS OF LIFTING ROTORS. Alfred Gessow. October 1956. 21p. diagr., tab. (NACA TN 3747)

A THEORETICAL ESTIMATE OF THE EFFECTS OF COMPRESSIBILITY ON THE PERFORMANCE OF A HELICOPTER ROTOR IN VARIOUS FLIGHT CONDITIONS. Alfred Gessow and Almer D. Crim. October 1956. 33p. diagrs. (NACA TN 3798)

CHARTS FOR ESTIMATING THE HOVERING ENDURANCE OF A HELICOPTER. Robert A. Makofski. October 1956. 15p. diagrs. (NACA TN 3810)

DISTRIBUTION OF NORMAL COMPONENT OF INDUCED VELOCITY IN LATERAL PLANE OF A LIFTING ROTOR. Walter Castles, Jr., and Howard L. Durham, Jr., Georgia Institute of Technology. December 1956. 26p. diagrs., tabs. (NACA TN 3841)

ANALYTICAL DETERMINATION OF THE NATURAL COUPLED FREQUENCIES AND MODE SHAPES AND THE RESPONSE TO OSCILLATING FORCING FUNCTIONS OF TANDEM HELICOPTERS. George W. Brooks and John C. Houbolt. December 1956. 45p. diagrs., tabs. (NACA TN 3849)

EXPERIMENTAL INVESTIGATION ON THE LANGLEY HELICOPTER TEST TOWER OF COMPRESSIBILITY EFFECTS ON A ROTOR HAVING NACA 63_2-015 AIRFOIL SECTIONS. James P. Shivers and Paul J. Carpenter. December 1956. 28p. diagrs., photo. (NACA TN 3850)

FLIGHT MEASUREMENTS OF THE VIBRATIONS ENCOUNTERED BY A TANDEM HELICOPTER AND A METHOD FOR MEASURING THE COUPLED RESPONSE IN FLIGHT. John E. Yeates, Jr. December 1956. 28p. diagrs., photo., tab. (NACA TN 3852)

DETERMINATION OF THE STRUCTURAL DAMPING COEFFICIENTS OF SIX FULL-SCALE HELICOPTER ROTOR BLADES OF DIFFERENT MATERIALS AND METHODS OF CONSTRUCTION. Frederick W. Gibson. December 1956. 19p. diagrs., tab. (NACA TN 3862)

INVESTIGATION OF VERTICAL DRAG AND PERIODIC AIRLOADS ACTING ON FLAT PANELS IN A ROTOR SLIPSTREAM. Robert A. Makofski and George F. Menkick. December 1956. 23p. diagrs., photo. (NACA TN 3900)

THE EFFECT OF FORWARD-FLIGHT SPEED ON THE PROPULSIVE CHARACTERISTICS OF A PULSE-JET ENGINE MOUNTED ON A HELICOPTER ROTOR. Robert D. Powell, Jr. January 1957. 23p. diagrs., photos. (NACA TN 3855)

INSTRUMENT FLIGHT TRIALS WITH A HELICOPTER STABILIZED IN ATTITUDE ABOUT EACH AXIS INDIVIDUALLY. Seymour Salmirs and Robert J. Tapscott. January 1957. 17p. diagrs., photo. (NACA TN 3947)

APPROXIMATE SOLUTION FOR STREAMLINES ABOUT A LIFTING ROTOR HAVING UNIFORM LOADING AND OPERATING IN HOVERING OR LOW-SPEED VERTICAL-ASCENT FLIGHT CONDITIONS. Walter Castles, Jr., Georgia Institute of Technology. February 1957. 41p. diagrs., tabs. (NACA TN 3921)

METHODS FOR OBTAINING DESIRED HELICOPTER STABILITY CHARACTERISTICS AND PROCEDURES FOR STABILITY PREDICTIONS. F. B. Gustafson and Robert J. Tapscott. February 1957. 28p. diagrs., tabs. (NACA TN 3945. Supersedes RM L54F30; RM L54G05)

SOME EFFECTS OF VALVE FRICTION AND STICK FRICTION ON CONTROL QUALITY IN A HELICOPTER WITH HYDRAULIC-POWER CONTROL SYSTEMS. B. Porter Brown and John P. Reeder. May 1957. 8p. diagr. (NACA TN 4004)

(1.7.4)
SEAPLANES

(1.7.4.1)
GENERAL STUDIES

THE HYDRODYNAMIC FORCE CHARACTERISTICS OF STREAMLINE BODIES OF REVOLUTION HAVING FINENESS RATIOS OF 6, 9, AND 12 WITH AND WITHOUT CHINE STRIPS. Bernard Weinflash and Rudolph E. Fontana. March 1955. 157p. diagrs., photos., tabs. (NACA RM L54K22)

HYDRODYNAMIC PRESSURE DISTRIBUTION OBTAINED WITH A STREAMLINE BODY EQUIPPED WITH CHINE STRIPS. Bernard Weinflash. September 1955. 29p. diagrs., photos., tabs. (NACA RM L55F20)

(1.7.6)
BIPLANES AND TRIPLANES

EXPLORATORY INVESTIGATION OF THE EFFECTIVENESS OF BIPLANE WINGS WITH LARGE-CHORD DOUBLE SLOTTED FLAPS IN REDIRECTING A PROPELLER SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Robert H. Kirby. October 1956. 22p. diagrs., tab. (NACA TN 3800)

(1.8)
Stability and Control

AERODYNAMIC CHARACTERISTICS OF TWO 25-PERCENT-AREA TRAILING-EDGE FLAPS ON AN ASPECT RATIO 2 TRIANGULAR WING AT SUBSONIC AND SUPERSONIC SPEEDS. John W. Boyd. July 1952. 82p. diagrs., photos., tabs. (NACA RM A52D01c)

AERODYNAMIC CHARACTERISTICS OF A CANARD-BALANCED, FREE-FLOATING, ALL-MOVABLE STABILIZER AS OBTAINED FROM ROCKET-POWERED-MODEL FLIGHT TESTS AND LOW-SPEED WIND-TUNNEL TESTS. William N. Gardner. December 1953. 65p. diagrs., photos., tabs. (NACA RM L53I28a)

THEORETICAL INVESTIGATION BASED ON EXPERIMENTAL FREQUENCY-RESPONSE MEASUREMENTS OF AN AUTOMATIC ALTITUDE CONTROL IN COMBINATION WITH A SUPERSONIC MISSILE CONFIGURATION. Ernest C. Seaberg, Edward S. Geller, and William W. Willoughby. August 1954. 28p. diagrs., photos. (NACA RM L54F04)

STUDIES OF THE SPEED STABILITY OF A TANDEM HELICOPTER IN FORWARD FLIGHT. Robert J. Tapscott and Kenneth B. Amer. 1956. ii, 12p. diagrs., photos., tab. (NACA Rept. 1260. Supersedes RM L53F15a)

(1.8.1)
STABILITY

METHODS FOR OBTAINING DESIRED HELICOPTER STABILITY CHARACTERISTICS AND PROCEDURES FOR STABILITY PREDICTIONS. F. B. Gustafson and Robert J. Tapscott. February 1957. 28p. diagrs., tabs. (NACA TN 3945. Supersedes RM L54F30; RM L54G05)

(1.8.1.1)
STATIC

AERODYNAMIC INTERFERENCE OF SLENDER WING-TAIL COMBINATIONS. Alvin H. Sacks. January 1957. 81p. diagrs., photos. (NACA TN 3725)

EFFECTS OF WING POSITION AND VERTICAL-TAIL CONFIGURATION ON STABILITY AND CONTROL CHARACTERISTICS OF A JET-POWERED DELTA-WING VERTICALLY RISING AIRPLANE MODEL. Powell M. Lovell, Jr., and Lysle P. Parlett. January 1957. 35p. diagrs., photos., tab. (NACA TN 3899)

(1.8.1.1.1)
Longitudinal

FLIGHT-TEST EVALUATION OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF 0.5-SCALE MODELS OF THE LARK PILOTLESS-AIRCRAFT CONFIGURATION. David G. Stone. February 6, 1948. 60p. diagrs., photos., tabs. (NACA RM L7I26)

RESULTS OF PRELIMINARY FLIGHT TESTS OF THE XS-1 AIRPLANE (8-PERCENT WING) TO A MACH NUMBER OF 1.25. W. C. Williams and De E. Beeler. April 6, 1948. 14p. diagrs. (NACA RM L8A23a)

RESULTS OBTAINED DURING ACCELERATED TRANSONIC TESTS OF THE BELL XS-1 AIRPLANE IN FLIGHTS TO A MACH NUMBER OF 0.92. Hubert M. Drake, Milton D. McLaughlin, and Harold R. Goodman. April 19, 1948. 22p. diagrs., tab. (NACA RM L8A05a)

FLIGHT INVESTIGATION TO DETERMINE THE AERODYNAMIC CHARACTERISTICS OF ROCKET-POWERED MODELS REPRESENTATIVE OF A FIGHTER-TYPE AIRPLANE CONFIGURATION INCORPORATING AN INVERSE-TAPER WING AND A VEE TAIL. Sidney R. Alexander. November 2, 1948. 29p. diagrs., photos., tab. (NACA RM L8G29)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS AT A MACH NUMBER OF 1.53 INCLUDING EFFECT OF SMALL VARIATIONS OF SWEEP. Robert T. Madden. January 26, 1949. 71p. diagrs., photos., tabs. (NACA RM A8J04)

HIGH-SPEED WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE D-558-2 RESEARCH AIRPLANE AT HIGH SUBSONIC MACH NUMBERS AND AT A MACH NUMBER OF 1.2. Robert S. Osborne. April 5, 1949. 87p. diagrs., photos., tabs. (NACA RM L9C04)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS OF SPLIT FLAPS, ELEVONS, AND LEADING-EDGE DEVICES AT LOW SPEED. Edward J. Hopkins. May 19, 1949. 46p. diagrs., photos. (NACA RM A9C21)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS THROUGHOUT THE SUBSONIC SPEED RANGE WITH THE WING CAMBERED AND TWISTED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.25. J. Lloyd Jones and Fred A. Demele. August 15, 1949. 41p. diagrs., photos., tab. (NACA RM A9D25)

PRELIMINARY FLIGHT MEASUREMENTS OF THE STATIC LONGITUDINAL STABILITY AND STALLING CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE (BUAERO. NO. 37974). S. A. Sjoberg and R. A. Champine. October 18, 1949. 16p. diagrs., photos., tab. (NACA RM L9H31a)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - CHARACTERISTICS AT SUPERSONIC SPEEDS OF A MODEL WITH THE WING TWISTED AND CAMBERED FOR UNIFORM LOAD. Charles F. Hall and John C. Heitmeyer. January 9, 1950. 35p. diagrs., photo. (NACA RM A9J24)

LONGITUDINAL TRIM AND DRAG CHARACTERISTICS OF ROCKET-PROPELLED MODELS REPRESENTING TWO AIRPLANE CONFIGURATIONS. James H. Parks and Jesse L. Mitchell. February 6, 1950. 25p. diagrs., photos., tab. (NACA RM L9L22)

PRELIMINARY RESULTS FROM A FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION WITH A THIN STRAIGHT WING OF ASPECT RATIO 3. Clarence L. Gillis, Robert F. Peck, and A. James Vitale. February 14, 1950. 53p. diagrs., photos., tabs. (NACA RM L9K25a)

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF A WING SWEPT BACK 63° AND TWISTED AND CAMBERED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.5. James A. Weiberg and Hubert C. Carel. May 9, 1950. 53p. diagrs., photos., tabs. (NACA RM A50A23)

SOME EFFECTS OF CHORDWISE FENCES ON THE AERODYNAMIC CHARACTERISTICS OF FOUR MODERATELY SWEPTBACK WINGS IN THE LOW-LIFT RANGE AT TRANSONIC MACH NUMBERS AND AT MACH NUMBER 1.9. Lawrence D. Guy. July 21, 1950. 22p. diagrs., photo., tab. (NACA RM L50E16)

INVESTIGATION OF DOWNWASH, SIDEWASH, AND MACH NUMBER DISTRIBUTION BEHIND A RECTANGULAR WING AT A MACH NUMBER OF 2.41. D. Adamson and William B. Boatright. September 14, 1950. 115p. diagrs., photos., tab. (NACA RM L50G12)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECT OF SIDESLIP ON AERODYNAMIC CHARACTERISTICS AT A MACH NUMBER OF 1.4 WITH THE WING TWISTED AND CAMBERED. Henry C. Lessing. September 29, 1950. 28p. diagrs., photos. (NACA RM A50F09)

A SMALL-SCALE INVESTIGATION OF "M" AND "W" WINGS AT TRANSONIC SPEEDS. George S. Campbell and William D. Morrison, Jr. October 2, 1950. 30p. diagrs., photo., tab. (NACA RM L50H25a)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECT OF REYNOLDS NUMBER AT SUPERSONIC MACH NUMBERS ON THE LONGITUDINAL CHARACTERISTICS OF A WING TWISTED AND CAMBERED FOR UNIFORM LOAD. John C. Heitmeyer. October 9, 1950. 36p. diagrs., photo. (NACA RM A50G10)

INVESTIGATION OF THE DYNAMIC LONGITUDINAL STABILITY OF TWO EQUAL-SIZE MODELS COUPLED IN TANDEM WITH A SINGLE JOINT. PRELIMINARY MODEL FLIGHT TESTS. Robert E. Shanks and David Grana. November 13, 1950. 14p. diagrs., tab. (NACA RM L50H17)

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF A WING SWEPT BACK 63° AND TWISTED AND CAMBERED FOR UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.5 AND WITH A THICKENED TIP SECTION. James A. Weiberg and Hubert C. Carel. November 21, 1950. 42p. diagrs., photo., tabs. (NACA RM A50I14)

THE USE OF AREA SUCTION FOR THE PURPOSE OF DELAYING SEPARATION OF AIR FLOW AT THE LEADING EDGE OF A 63° SWEPT-BACK WING. Woodrow L. Cook, Roy N. Griffin, Jr., and Gerald M. McCormack. November 22, 1950. 68p. diagrs., photo., tab. (NACA RM A50H09)

THE EFFECTS OF BOUNDARY-LAYER CONTROL ON THE LONGITUDINAL CHARACTERISTICS OF A SWEPT-BACK WING USING SUCTION THROUGH STREAMWISE SLOTS IN THE OUTBOARD PORTION OF THE WING. Gerald M. McCormack and William H. Tolhurst, Jr. January 5, 1951. 34p. diagrs., photo., tabs. (NACA RM A50K06)

INVESTIGATION OF THE EFFECTS OF LEADING-EDGE CHORD-EXTENSIONS ON THE AERODYNAMIC AND CONTROL CHARACTERISTICS OF TWO SWEPTBACK WINGS AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Ellery B. May, Jr. January 16, 1951. 25p. diagrs., photo. (NACA RM L50L06a)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS AT MACH NUMBERS UP TO 0.87. S. A. Sjoberg, James R. Peele, and John H. Griffith. January 17, 1951. 48p. diagrs., photos., tab. (NACA RM L50K13)

DYNAMIC LONGITUDINAL STABILITY AND CONTROL OF TANDEM-COUPLED BOMBER-FIGHTER AIRPLANE MODELS WITH RIGID AND PITCH-FREE COUPLINGS. David C. Grana and Donald E. Hewes. January 22, 1951. 12p. diagrs., tabs. (NACA RM L50L14)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TAPERED WING OF ASPECT RATIO 3.1 WITH 3-PERCENT-THICK, BICONVEX SECTION. David E. Reese and E. Ray Phelps. January 30, 1951. 26p. diagrs., photo. (NACA RM A50K28)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0008-63 SECTION. Donald W. Smith and John C. Heitmeyer. February 1, 1951. 22p. diagrs., photo. (NACA RM A50K20)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 SECTION. Donald W. Smith and John C. Heitmeyer. February 1, 1951. 23p. diagrs., photo. (NACA RM A50K21)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH NACA 0005-63 SECTION. John C. Heitmeyer and Jack D. Stephenson. February 2, 1951. 21p. diagrs., photo. (NACA RM A50K24)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0003-63 SECTION. John C. Heitmeyer and Willard G. Smith. February 2, 1951. 22p. diagrs., photo. (NACA RM A50K24a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TRIANGULAR WING OF ASPECT RATIO 4 WITH NACA 0005-63 THICKNESS DISTRIBUTION, CAMBERED AND TWISTED FOR TRAPEZOIDAL SPAN LOAD DISTRIBUTION. E. Ray Phelps and Willard G. Smith. February 2, 1951. 23p. diagrs., photo., tab. (NACA RM A50K24b)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - TRIANGULAR WING OF ASPECT RATIO 2 WITH NACA 0005-63 THICKNESS DISTRIBUTION, CAMBERED AND TWISTED FOR A TRAPEZOIDAL SPAN LOAD DISTRIBUTION. Willard G. Smith and E. Ray Phelps. February 5, 1951. 21p. diagrs., photo., tab. (NACA RM A50K27a)

AERODYNAMIC CHARACTERISTICS OF WINGS DESIGNED FOR STRUCTURAL IMPROVEMENTS. Joseph Weil and Edward C. Polhamus. May 28, 1951. 12p. diagrs. (NACA RM L51E10a)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH 3-PERCENT-THICK, BICONVEX SECTION. John C. Heitmeyer. June 8, 1951. 26p. diagrs., photo. (NACA RM A51D30)

LOW-SPEED CHARACTERISTICS OF A WING HAVING 63° SWEEPBACK AND UNIFORM CAMBER. Leonard M. Rose. June 26, 1951. 18p. diagrs., photo., tabs. (NACA RM A51D25)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 4 WITH 3-PERCENT-THICK ROUNDED NOSE SECTION. John C. Heitmeyer and Ronald C. Hightower. August 1951. 17p. diagrs. (NACA RM A51F21)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TRIANGULAR WING OF ASPECT RATIO 3 WITH NACA 0003-63 SECTION. John C. Heitmeyer. September 1951. 20p. diagrs. (NACA RM A51H02)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE 45° SWEPT-BACK WING OF ASPECT RATIO 3, TAPER RATIO 0.4 WITH 3-PERCENT-THICK, BICONVEX SECTION. John C. Heitmeyer. September 1951. 20p. diagrs. (NACA RM A51H10)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A LEADING-EDGE SLAT ON A MODIFIED-DOUBLE-WEDGE WING. Richard G. MacLeod. December 1951. 12p. diagrs. (NACA RM L51J22a)

EXPERIMENTAL AND THEORETICAL STUDY OF FACTORS INFLUENCING THE LONGITUDINAL STABILITY OF AN AIR-TO-AIR MISSILE AT A MACH NUMBER OF 1.4. S. Sherman Edwards. January 1952. 51p. diagrs., photo., tabs. (NACA RM A51J19)

THE USE OF AREA SUCTION FOR THE PURPOSE OF DELAYING SEPARATION OF AIR FLOW AT THE LEADING EDGE OF A 63° SWEPT-BACK WING - EFFECTS OF CONTROLLING THE CHORDWISE DISTRIBUTION OF SUCTION-AIR VELOCITIES. Woodrow L. Cook and Mark W. Kelly. January 1952. 51p. diagrs., photo., tab. (NACA RM A51J24)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SPOILERS OF LARGE PROJECTION ON AN NACA 65A006 WING WITH QUARTER-CHORD LINE SWEPT BACK 32.6°. Raymond D. Vogler. January 1952. 31p. diagrs., tab. (NACA RM L51L10)

CHARACTERISTICS OF SWEPT WINGS AT HIGH SPEEDS. Charles J. Donlan and Joseph Weil. January 1952. 19p. diagrs. (NACA RM L52A15)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - AN INVESTIGATION AT LARGE REYNOLDS NUMBERS OF THE LOW-SPEED CHARACTERISTICS OF SEVERAL WING-BODY COMBINATIONS. Donald W. Smith, Harry H. Shibata, and Ralph Selan. February 1952. 56p. diagrs., photos., tab. (NACA RM A51K28)

THE EFFECTS OF SUCTION THROUGH POROUS LEADING-EDGE SURFACES ON THE AERODYNAMIC CHARACTERISTICS OF A 47.5° SWEPTBACK WING-FUSELAGE COMBINATION AT A REYNOLDS NUMBER OF 4.4 x 10^6. Jerome Pasamanick and William I. Scallion. March 1952. 61p. diagrs., photo., tabs. (NACA RM L51K15)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.70 TO 1.37 OF ROCKET-PROPELLED MODELS HAVING A MODIFIED TRIANGULAR WING. Rowe Chapman, Jr., and John D. Morrow. May 1952. 35p. diagrs., photos., tab. (NACA RM L52A31)

EFFECTS OF CHORD DISCONTINUITIES AND CHORDWISE FENCES ON LOW-SPEED STATIC LONGITUDINAL STABILITY OF AN AIRPLANE MODEL HAVING A 35° SWEPTBACK WING. Byron M. Jaquet. June 1952. 54p. photos., diagrs., tab. (NACA RM L52C25)

FLIGHT INVESTIGATION FROM MACH NUMBER 0.8 TO MACH NUMBER 2.0 TO DETERMINE SOME EFFECTS OF WING-TO-TAIL DISTANCE ON THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° DELTA-WING-CANARD MISSILE. Clarence A. Brown, Jr., and Reginald R. Lundstrom. June 1952. 42p. diagrs., photos. (NACA RM L52C26)

AERODYNAMIC CHARACTERISTICS OF TWO 25-PERCENT-AREA TRAILING-EDGE FLAPS ON AN ASPECT RATIO 2 TRIANGULAR WING AT SUBSONIC AND SUPERSONIC SPEEDS. John W. Boyd. July 1952. 82p. diagrs., photos., tabs. (NACA RM A52D01c)

TRANSONIC AERODYNAMIC CHARACTERISTICS OF THREE THIN TRIANGULAR WINGS AND A TRAPEZOIDAL WING, ALL OF LOW ASPECT RATIO. Horace F. Emerson and Bernard M. Gale. July 1952. 35p. diagrs., photos. (NACA RM A52D21)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - PLANE TAPERED WING OF ASPECT RATIO 3.1 WITH 3-PERCENT-THICK ROUNDED-NOSE SECTION. John C. Heitmeyer. July 1952. 25p. diagrs., tabs. (NACA RM A52D23)

SOME EFFECTS OF FIN PLAN FORM ON THE STATIC STABILITY OF FIN-BODY COMBINATIONS AT MACH NUMBER 4.06. Edward F. Ulmann and Robert W. Dunning. July 1952. 20p. diagrs., photos. (NACA RM L52D15a)

TRANSONIC AERODYNAMIC CHARACTERISTICS OF THREE W-PLAN-FORM WINGS HAVING ASPECT RATIO 8, TAPER RATIO 0.45, AND NACA 63A-SERIES AIRFOIL SECTIONS. William D. Morrison, Jr. July 1952. 30p. diagrs., photo. (NACA RM L52E14a)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

WIND-TUNNEL INVESTIGATION OF A RAM-JET CANARD MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.60. M. Leroy Spearman and Ross B. Robinson. August 1952. 63p. diagrs., photo., tabs. (NACA RM L52E15)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED STATIC AND ROTARY STABILITY DERIVATIVES OF A 0.13-SCALE MODEL OF THE DOUGLAS D-558-II AIRPLANE IN THE LANDING CONFIGURATION. M. J. Queijo and Evalyn G. Wells. August 1952. 17p. diagrs., photo., tab. (NACA RM L52G07)

LONGITUDINAL FREQUENCY-RESPONSE AND STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II AIRPLANE AS DETERMINED FROM TRANSIENT RESPONSE TO A MACH NUMBER OF 0.96. Euclid C. Holleman. September 1952. 35p. diagrs., tabs. (NACA RM L52E02)

AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION AND THE FUSELAGE ALONE OBTAINED IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Robert S. Osborne and John P. Mugler, Jr. September 1952. 71p. diagrs., photos., tabs. (NACA RM L52E14)

INVESTIGATION AT A MACH NUMBER OF 1.2 OF TWO 45° SWEPTBACK WINGS UTILIZING NACA 2-006 AND NACA 65A006 AIRFOIL SECTIONS. Homer B. Wilson, Jr. September 1952. 20p. diagrs., photo., tab. (NACA RM L52G17)

THE USE OF THE ROLLED-UP VORTEX CONCEPT FOR PREDICTING WING-TAIL INTERFERENCE AND COMPARISON WITH EXPERIMENT AT MACH NUMBER OF 1.62 FOR A SERIES OF MISSILE CONFIGURATIONS HAVING TANDEM CRUCIFORM LIFTING SURFACES. Carl E. Grigsby. September 1952. 41p. diagrs., photos. (NACA RM L52H05)

THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° DELTA-WING MISSILE HAVING HALF-DELTA TIP CONTROLS AS OBTAINED FROM A FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS. Martin T. Moul and Hal T. Baber, Jr. October 1952. 35p. diagrs., photos. (NACA RM L52H14)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE INTERFERENCE BETWEEN A 45° SWEPTBACK WING AND A SYSTEMATIC SERIES OF FOUR BODIES. Donald L. Loving and Dewey E. Wornom. November 1952. 42p. diagrs., photos., tabs. (NACA RM L52J01)

A SMALL-SCALE INVESTIGATION OF THE EFFECT OF SPANWISE AND CHORDWISE POSITIONING OF AN OGIVE-CYLINDER UNDERWING NACELLE ON THE HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK TAPERED-IN-THICKNESS WING OF ASPECT RATIO 6. H. Norman Silvers and Thomas J. King, Jr. December 1952. 57p. diagrs., tab. (NACA RM L52J22)

(1) AERODYNAMICS

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE CHARACTERISTICS OF A TWISTED AND CAMBERED 45° SWEPTBACK WING-FUSELAGE CONFIGURATION. Daniel E. Harrison. December 1952. 20p. diagrs. (NACA RM L52K18)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF A THIN 60° DELTA WING WITH DOUBLE SLOTTED, SINGLE SLOTTED, PLAIN, AND SPLIT FLAPS. John M. Riebe and Richard G. MacLeod. January 1953. 57p. diagrs., photo., tabs. (NACA RM L52J29)

ROCKET-MODEL INVESTIGATION OF LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING A 60° DELTA WING AND A HIGH UNSWEPT HORIZONTAL TAIL. Robert F. Peck and Jesse L. Mitchell. January 1953. 28p. diagrs., photo. (NACA RM L52K04a)

TRANSONIC WIND-TUNNEL INVESTIGATION OF AN UNSWEPT WING IN COMBINATION WITH A SYSTEMATIC SERIES OF FOUR BODIES. Bruce B. Estabrooks. January 1953. 25p. diagrs., photos. (NACA RM L52K12a)

SMALL-SCALE TRANSONIC INVESTIGATION OF A 45° SWEPTBACK WING OF ASPECT RATIO 4 WITH COMBINATIONS OF NOSE-FLAP DEFLECTIONS AND WING TWIST. William J. Alford, Jr., and Kenneth P. Spreemann. January 1953. 23p. diagrs., photo. (NACA RM L52K13)

EFFECTS OF CHORD-EXTENSION AND DROOP OF COMBINED LEADING-EDGE FLAP AND CHORD-EXTENSION ON LOW-SPEED STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 35° SWEPTBACK WING WITH PLAIN FLAPS NEUTRAL OR DEFLECTED. Byron M. Jaquet. January 1953. 34p. diagrs., photos. (NACA RM L52K21a)

EFFECTS OF WING ELASTICITY ON THE AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WINGS AS OBTAINED FROM FREE-FLIGHT ROCKET-MODEL TESTS AT TRANSONIC SPEEDS. A. James Vitale. January 1953. 49p. diagrs., photos., tab. (NACA RM L52L30)

LIFT, DRAG, AND PITCHING MOMENT OF LOW-ASPECT-RATIO WINGS AT SUBSONIC AND SUPERSONIC SPEEDS - COMPARISON OF THREE WINGS OF ASPECT RATIO 2 OF RECTANGULAR, SWEPTBACK, AND TRIANGULAR PLAN FORM, INCLUDING EFFECTS OF THICKNESS DISTRIBUTION. Ronald C. Hightower. February 1953. 30p. diagrs., tabs. (NACA RM A52L02)

STATIC AEROELASTIC PHENOMENA OF M-, W-, AND Λ-WINGS. Franklin W. Diederich and Kenneth A. Foss. February 1953. ii, 111p. diagrs., tabs. (NACA RM L52J21)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF AN UNSWEPT-WING-BODY COMBINATION AT ANGLES OF ATTACK UP TO 24°. Bruce B. Estabrooks. February 1953. 23p. diagrs., tab. (NACA RM L52L19)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF LONGITUDINAL WING LOCATION AND VARYING BODY SIZE ON THE INTERFERENCE CHARACTERISTICS OF A 45° SWEPTBACK WING. Donald L. Loving. March 1953. 31p. diagrs., photo., tabs. (NACA RM L52L16)

AN INVESTIGATION AT TRANSONIC SPEEDS OF THE EFFECTS OF FENCES, DROOPED NOSE, AND VORTEX GENERATORS ON THE AERODYNAMIC CHARACTERISTICS OF A WING-FUSELAGE COMBINATION HAVING A 6-PERCENT-THICK, 45° SWEPTBACK WING. Gerald Hieser. March 1953. 26p. diagrs., photos. (NACA RM L53B04)

PRELIMINARY MEASUREMENTS OF STATIC LONGITUDINAL STABILITY AND TRIM FOR THE XF-92A DELTA-WING RESEARCH AIRPLANE IN SUBSONIC AND TRANSONIC FLIGHT. Thomas R. Sisk and John M. Mooney. March 1953. 19p. diagrs., photo., tab. (NACA RM L53B06)

TRANSONIC WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A 60° TRIANGULAR WING IN COMBINATION WITH A SYSTEMATIC SERIES OF THREE BODIES. Thomas C. Kelly. April 1953. 22p. diagrs., photo. (NACA RM L52L22a)

EFFECT OF LEADING-EDGE CHORD-EXTENSIONS ON THE AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION AT MACH NUMBERS OF 0.40 TO 1.03. F. E. West, Jr., George Liner, and Gladys S. Martz. April 1953. 40p. diagrs., photo. (NACA RM L53B02)

SUBSONIC STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A WING-BODY COMBINATION HAVING A POINTED WING OF ASPECT RATIO 2 WITH CONSTANT-PERCENT-CHORD TRAILING-EDGE ELEVONS. Donald W. Smith and Verlin D. Reed. May 1953. 143p. diagrs., photos., tab. (NACA RM A53C20)

A TRANSONIC INVESTIGATION BY THE FREE-FALL METHOD OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WING AND TAIL SURFACES. Stanley Faber and John M. Eggleston. June 1953. 41p. diagrs., photos., tabs. (NACA RM L53D10)

EFFECT OF VARIATIONS IN REYNOLDS NUMBER ON THE AERODYNAMIC CHARACTERISTICS OF THREE BOMB OR STORE SHAPES AT A MACH NUMBER OF 1.62 WITH AND WITHOUT FINS. Robert W. Rainey. June 1953. 40p. diagrs., photos., tab. (NACA RM L53D27)

PRELIMINARY FLIGHT MEASUREMENTS OF THE DYNAMIC LONGITUDINAL STABILITY CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE. Euclid C. Holleman, John H. Evans, and William C. Triplett. June 1953. 17p. diagrs., tab. (NACA RM L53E14)

THE USE OF AREA SUCTION FOR THE PURPOSE OF IMPROVING TRAILING-EDGE FLAP EFFECTIVENESS ON A 35° SWEPTBACK WING. Woodrow L. Cook, Curt A. Holzhauser, and Mark W. Kelly. July 1953. 77p. diagrs., photos., tabs. (NACA RM A53E06)

FREE-FLIGHT LONGITUDINAL-STABILITY INVESTIGATION INCLUDING SOME EFFECTS OF WING ELASTICITY FROM MACH NUMBERS OF 0.85 TO 1.34 OF A TAILLESS MISSILE CONFIGURATION HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 5.5. Richard G. Arbic and Warren Gillespie, Jr. August 1953. 30p. diagrs., photos., tabs. (NACA RM L53F18)

TRANSONIC AERODYNAMIC CHARACTERISTICS IN PITCH OF A W-WING HAVING 60° 48' PANEL SWEEP, ASPECT RATIO 3.5, AND TAPER RATIO 0.25. William D. Morrison, Jr. August 1953. 18p. diagrs., photo. (NACA RM L53F22)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL AND STATIC LATERAL STABILITY CHARACTERISTICS OF A WING-FUSELAGE COMBINATION HAVING A TRIANGULAR WING OF ASPECT RATIO 2.31 AND AN NACA 65A003 AIRFOIL. James W. Wiggins. August 1953. 28p. diagrs., photos. (NACA RM L53G09a)

INVESTIGATION OF THE EFFECTS OF LEADING-EDGE FLAPS ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT MACH NUMBERS FROM 0.40 TO 0.93 OF A WING-FUSELAGE CONFIGURATION WITH A 45° SWEPTBACK WING OF ASPECT RATIO 4. Kenneth P. Spreemann and William J. Alford, Jr. August 1953. 36p. diagrs., photo., tabs. (NACA RM L53G13)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS IN PITCH AND SIDESLIP AT HIGH SUBSONIC SPEEDS OF A WING-FUSELAGE COMBINATION HAVING A TRIANGULAR WING OF ASPECT RATIO 4. Paul G. Fournier. August 1953. 23p. diagrs., photos. (NACA RM L53G14a)

HORIZONTAL-TAIL LOAD MEASUREMENTS AT TRANSONIC SPEEDS OF THE BELL X-1 RESEARCH AIRPLANE. John T. Rogers. September 1953. 23p. diagrs., photo., tab. (NACA RM L53F30)

STATIC LATERAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 47.7° SWEPTBACK WING OF ASPECT RATIO 6 AND THE CONTRIBUTION OF VARIOUS MODEL COMPONENTS AT A REYNOLDS NUMBER OF 4.45×10^6. Roland F. Griner. September 1953. 83p. diagrs., photos., tabs. (NACA RM L53G09)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF LOCATION OF A DELTA HORIZONTAL TAIL ON THE LONGITUDINAL STABILITY AND CONTROL OF A FUSELAGE AND THIN DELTA WING WITH DOUBLE SLOTTED FLAPS INCLUDING THE EFFECTS OF A GROUND BOARD. John M. Riebe and Jean C. Graven, Jr. October 1953. 38p. diagrs., tabs. (NACA RM L53H19a)

SOME LOW-SPEED WIND-TUNNEL EXPERIMENTS PERTAINING TO THE LONGITUDINAL STABILITY CHARACTERISTICS OF A 35° SWEPT-WING MODEL AND AN UNSWEPT-WING MODEL. Byron M. Jaquet. October 1953. 43p. diagrs., photos., tab. (NACA RM L53H31)

THE USE OF A LEADING-EDGE AREA-SUCTION FLAP TO DELAY SEPARATION OF AIR FLOW FROM THE LEADING EDGE OF A 35° SWEPTBACK WING. Curt A. Holzhauser and Robert K. Martin. December 1953. 42p. diagrs., photos., tabs. (NACA RM A53J26)

AERODYNAMIC CHARACTERISTICS IN PITCH OF THREE STRUCTURALLY SIMILAR FLEXIBLE WINGS WITH 45° SWEEP: A SWEPTBACK WING, A WING WITH M PLAN FORM, AND A WING WITH W PLAN FORM. John W. McKee, Delwin R. Croom, and Rodger L. Naeseth. December 1953. 43p. diagrs., photos. (NACA RM L53J02a)

LONGITUDINAL STABILITY AND TRIM OF TWO ROCKET-PROPELLED AIRPLANE MODELS HAVING 45° SWEPTBACK WINGS AND TAILS WITH THE HORIZONTAL TAIL MOUNTED IN TWO POSITIONS. James H. Parks and Alan B. Kehlet. December 1953. 26p. diagrs., photos. (NACA RM L53J12a)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF LOCATION OF A DELTA AND A STRAIGHT TAIL ON THE LONGITUDINAL STABILITY AND CONTROL OF A THIN DELTA WING WITH EXTENDED DOUBLE SLOTTED FLAPS. John M. Riebe and Jean C. Graven, Jr. January 1954. 49p. diagrs., tabs. (NACA RM L53J26)

THE TWISTING EFFECT AT TRANSONIC SPEEDS OF SPOILER AILERONS ON A 45° SWEPTBACK, ASPECT-RATIO-4, TAPERED WING. Alexander D. Hammond and Jean C. Graven, Jr. January 1954. 21p. diagrs., photo. (NACA RM L53K03a)

MEASURED AND ESTIMATED LATERAL STATIC AND ROTARY DERIVATIVES OF A 1/12-SCALE MODEL OF A HIGH-SPEED FIGHTER AIRPLANE WITH UNSWEPT WINGS. James L. Williams. January 1954. 24p. diagrs., photos., tab. (NACA RM L53K09)

THE EFFECTS OF CHANGES IN ASPECT RATIO AND TAIL HEIGHT ON THE LONGITUDINAL STABILITY CHARACTERISTICS AT HIGH SUBSONIC SPEEDS OF A MODEL WITH A WING HAVING 32.6° SWEEPBACK. William J. Alford, Jr. and Thomas B. Pasteur, Jr. February 1954. 61p. diagrs., photos., tab. (NACA RM L53L09)

THE EFFECTS OF CIRCULAR END PLATES ON THE LIFT, DRAG, AND PITCHING MOMENT AT SUBSONIC AND SUPERSONIC SPEEDS ON A MODIFIED TRIANGULAR WING HAVING AN ASPECT RATIO OF 2, A TAPER RATIO OF 0.33, AND A 45° SWEPT LEADING EDGE. Robert B. Petersen. March 1954. 16p. diagrs., tab. (NACA RM A53J14)

(1) AERODYNAMICS

THE EFFECTS OF HORIZONTAL-TAIL LOCATION AND SIZE ON THE SUBSONIC LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Bruce E. Tinling and Armando E. Lopez. March 1954. 85p. diagrs., photo., tabs. (NACA RM A53L15)

TESTS IN THE AMES 40- BY 80-FOOT WIND TUNNEL OF THE EFFECTS OF VARIOUS WING MODIFICATIONS ON THE LONGITUDINAL CHARACTERISTICS OF TWO TRIANGULAR-WING AIRPLANE MODELS WITH AND WITHOUT HORIZONTAL TAILS. David G. Koenig. April 1954. 29p. diagrs., tabs. (NACA RM A54B09)

THREE-DEGREE-OF-FREEDOM EVALUATION OF THE LONGITUDINAL TRANSFER FUNCTIONS OF A SUPERSONIC CANARD MISSILE CONFIGURATION INCLUDING CHANGES IN FORWARD SPEED. Ernest C. Seaberg. April 1954. 29p. diagrs., photo., tabs. (NACA RM L54C02)

EFFECT ON THE LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A 49° SWEPTBACK WING HAVING AN ASPECT RATIO OF 3.78 OF BLOWING AIR OVER THE TRAILING-EDGE FLAP AND AILERON. Edward F. Whittle, Jr., and Stanley Lipson. April 1954. 51p. diagrs., photo., tab. (NACA RM L54C05)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING SWEPTBACK-, M-, W-, AND CRANKED-WING PLAN FORMS AND SEVERAL HORIZONTAL-TAIL LOCATIONS. Kenneth W. Goodson and Robert E. Becht. May 1954. 72p. diagrs., photo. (NACA RM L54C29)

A WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE LATERAL CONTROL CHARACTERISTICS OF VARIOUS PLAIN SPOILER CONFIGURATIONS ON A 3-PERCENT-THICK 60° DELTA WING. Harleth G. Wiley. May 1954. 45p. diagrs., tabs. (NACA RM L54D01)

AERODYNAMIC CHARACTERISTICS AT SMALL SCALE AND A MACH NUMBER OF 1.38 OF UNTAPERED WINGS HAVING M AND W PLAN FORMS. William B. Kemp, Jr. June 1954. 17p. diagrs., tab. (NACA RM L54D15a)

FLIGHT INVESTIGATION TO DETERMINE LIFT AND DRAG CHARACTERISTICS OF A CANARD RAM-JET MISSILE CONFIGURATION IN THE MACH NUMBER RANGE OF 0.8 TO 2.0. Abraham A. Gammal and Thomas L. Kennedy. June 1954. 20p. diagrs., photos. (NACA RM L54D28)

A FLIGHT EVALUATION OF THE STABILITY AND CONTROL OF THE X-4 SWEPT-WING SEMITAILLESS AIRPLANE. Melvin Sadoff and A. Scott Crossfield. August 1954. 48p. diagrs., photos., tab. (NACA RM H54G16)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING CROPPED-DELTA, SWEPT, AND UNSWEPT WINGS AND SEVERAL HORIZONTAL-TAIL HEIGHTS. Kenneth W. Goodson and Robert E. Becht. October 1954. 44p. diagrs. (NACA RM L54H12)

A TRANSONIC WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL FORCE AND MOMENT CHARACTERISTICS OF A PLANE AND A CAMBERED 3-PERCENT-THICK DELTA WING OF ASPECT RATIO 3 ON A SLENDER BODY. Dale L. Burrows and William E. Palmer. November 1954. 31p. diagrs., photos., tab. (NACA RM L54H25)

TESTS IN THE AMES 40- BY 80-FOOT WIND TUNNEL OF THE AERODYNAMIC CHARACTERISTICS OF AIRPLANE MODELS WITH PLAIN SPOILER AILERONS. Ralph W. Franks. December 1954. 47p. diagrs., photo., tabs. (NACA RM A54H26)

A PRELIMINARY INVESTIGATION OF THE USE OF CIRCULATION CONTROL TO INCREASE THE LIFT OF A 45° SWEPTBACK WING BY SUCTION THROUGH TRAILING-EDGE SLOTS. Woodrow L. Cook, Roy N. Griffin, Jr., and David H. Hickey. December 1954. 56p. diagrs., photo., tabs. (NACA RM A54I21)

FLIGHT INVESTIGATION OF THE EFFECTS OF HORIZONTAL-TAIL HEIGHT, MOMENT OF INERTIA, AND CONTROL EFFECTIVENESS ON THE PITCH-UP CHARACTERISTICS OF A 35° SWEPTWING FIGHTER AIRPLANE AT HIGH SUBSONIC SPEEDS. Norman M. McFadden and Donovan R. Heinle. January 1955. 24p. diagrs., photos., tab. (NACA RM A54F21)

THE EFFECTS OF TRAILING-EDGE FLAPS ON THE SUBSONIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Bruce E. Tinling and A. V. Karpen. January 1955. 37p. diagrs., photos., tabs. (NACA RM A54L07)

THE EFFECT OF BLUNT-TRAILING-EDGE ELEVONS ON THE LONGITUDINAL AND LATERAL HANDLING QUALITIES OF THE X-4 SEMITAILLESS AIRPLANE. Edwin J. Saltzman. January 1955. 29p. diagrs., photos., tab. (NACA RM H54K03)

EFFECTS OF SPANWISE LOCATION OF SWEEP DISCONTINUITY ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL WITH WINGS OF M AND W PLAN FORM. Paul G. Fournier. January 1955. 44p. diagrs., photo., tab. (NACA RM L54K23)

A LOW-SPEED INVESTIGATION OF A THIN 60° DELTA WING EQUIPPED WITH A DOUBLE SLOTTED FLAP TO DETERMINE THE CHORDWISE PRESSURE DISTRIBUTION AND THE EFFECT OF VANE SIZE. Delwin R. Croom. March 1955. 42p. diagrs., tabs. (NACA RM L54L03a)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF LEADING-EDGE POROUS SUCTION ON A 4-PERCENT-THICK 60° DELTA WING. E. Carson Yates, Jr. March 1955. 73p. diagrs., photo., tabs. (NACA RM L54L21)

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF A WING HAVING 63° SWEEPBACK AND A DROOPED TIP. James R. Blackaby. April 1955. 25p. diagrs., photos., tab. (NACA RM A55B14)

THE EFFECTS OF FLEXIBILITY ON THE LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE OF A LARGE AIRPLANE. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. May 1955. 16p. diagrs. (NACA RM A55D14)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING TANKS AND SPEED BRAKES ON THE STATIC STABILITY OF A MODEL HAVING A 40° SWEPT WING. William C. Sleeman, Jr., and William J. Alford, Jr. May 1955. 62p. diagrs., photo., tabs. (NACA RM L55C17)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Maurice D. White. June 1955. 39p. diagrs., photos., tabs. (NACA RM A55D18)

GROUND EFFECTS ON THE LONGITUDINAL CHARACTERISTICS OF TWO MODELS WITH WINGS HAVING LOW ASPECT RATIO AND POINTED TIPS. Donald A. Buell and Bruce E. Tinling. July 1955. 48p. diagrs., photos., tabs. (NACA RM A55E04)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECTS OF LEADING-EDGE RADIUS ON THE AERODYNAMIC CHARACTERISTICS OF A SWEPTBACK-WING—FUSELAGE COMBINATION WITH LEADING-EDGE FLAPS AND CHORD-EXTENSIONS. Kenneth P. Spreemann. July 1955. 42p. diagrs., photo., tabs. (NACA RM L55E25a)

EFFECTS OF LEADING-EDGE RADIUS ON THE LONGITUDINAL STABILITY OF TWO 45° SWEPTBACK WINGS AS INFLUENCED BY REYNOLDS NUMBERS UP TO 8.20×10^6 AND MACH NUMBERS UP TO 0.303. Gerald V. Foster and William C. Schneider. July 1955. 65p. diagrs. (NACA RM L55F06)

AERODYNAMIC CHARACTERISTICS AND PRESSURE DISTRIBUTIONS OF A 6-PERCENT-THICK 49° SWEPTBACK WING WITH BLOWING OVER HALF-SPAN AND FULL-SPAN FLAPS. Edward F. Whittle, Jr., and H. Clyde McLemore. September 1955. 71p. diagrs., photo., tabs. (NACA RM L55F02)

EFFECTS OF WING-MOUNTED TANK-TYPE STORES ON THE LOW-LIFT BUFFETING AND DRAG OF A SWEPT-WING AIRPLANE CONFIGURATION BETWEEN MACH NUMBERS OF 0.8 AND 1.3. Homer P. Mason. October 1955. 34p. diagrs., photos., tabs. (NACA RM L55D27)

FULL-SCALE WIND TUNNEL TESTS OF A 35° SWEPTBACK WING AIRPLANE WITH HIGH-VELOCITY BLOWING OVER THE TRAILING-EDGE FLAPS. Mark W. Kelly and William H. Tolhurst, Jr. November 1955. 49p. diagrs., photos., tab. (NACA RM A55I09)

LOW-SPEED STUDY OF THE EFFECT OF FREQUENCY ON THE STABILITY DERIVATIVES OF WINGS OSCILLATING IN YAW WITH PARTICULAR REFERENCE TO HIGH ANGLE-OF-ATTACK CONDITIONS. John P. Campbell, Joseph L. Johnson, Jr., and Donald E. Hewes. November 1955. 93p. diagrs., photos., tab. (NACA RM L55H05)

INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A MODEL WING-PROPELLER COMBINATION AND OF THE WING AND PROPELLER SEPARATELY AT ANGLES OF ATTACK UP TO 90°. Richard E. Kuhn and John W. Draper. 1956. ii, 40p. diagrs., photos., tab. (NACA Rept. 1263. Supersedes TN 3304)

WIND-TUNNEL AND FLIGHT INVESTIGATIONS OF THE USE OF LEADING-EDGE AREA SUCTION FOR THE PURPOSE OF INCREASING THE MAXIMUM LIFT COEFFICIENT OF A 35° SWEPT-WING AIRPLANE. Curt A. Holzhauser and Richard S. Bray. 1956. ii, 24p. diagrs., photos., tabs. (NACA Rept. 1276. Supersedes RM A52G17; RM A55C07)

LOW-SPEED LONGITUDINAL STABILITY AND LATERAL-CONTROL CHARACTERISTICS OF A MODEL OF A 40° SWEPT-WING FIGHTER-TYPE AIRPLANE AT A REYNOLDS NUMBER OF 9×10^6. Thomas V. Bollech and H. Neale Kelly. February 1956. 149p. diagrs., photo., tabs. (NACA RM L54B17)

PRELIMINARY MEASUREMENTS OF THE AERODYNAMIC YAWING DERIVATIVES OF A TRIANGULAR, A SWEPT, AND AN UNSWEPT WING PERFORMING PURE YAWING OSCILLATIONS, WITH A DESCRIPTION OF THE INSTRUMENTATION EMPLOYED. M. J. Queijo, Herman S. Fletcher, C. G. Marple, and F. M. Hughes. April 1956. 35p. diagrs., photos. (NACA RM L55L14)

LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING WITH DOUBLE SLOTTED FLAPS. Rodger L. Naeseth. April 1956. 31p. diagrs., tabs. (NACA RM L56A10)

COMPARISON OF FLIGHT AND WIND-TUNNEL MEASUREMENTS OF HIGH-SPEED-AIRPLANE STABILITY AND CONTROL CHARACTERISTICS. Walter C. Williams, Hubert M. Drake, and Jack Fischel. (The information in this report was also contained in a paper by the same authors which was presented to Wind Tunnel and Model Testing Panel of Advisory Group for Aeronautical Research and Development, Brussels, Belgium, August 27-31, 1956). August 1956. 16p. diagrs. (NACA TN 3859)

THE RESULTS OF WIND-TUNNEL TESTS TO A MACH NUMBER OF 0.90 OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10. George G. Edwards, Jerald K. Dickson, Fred B. Sutton, and Fred A. Demele. September 1956. 171p. diagrs., photo., tabs. (NACA TN 3789. Supersedes RM A53I28)

ANALYSIS OF WIND-TUNNEL TESTS TO A MACH NUMBER OF 0.90 OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10. George G. Edwards, Donald A. Buell, Fred A. Demele, and Fred B. Sutton. September 1956. 170p. diagrs., photos., tabs. (NACA TN 3790. Supersedes RM A54F14)

AERODYNAMIC CHARACTERISTICS AND FLYING QUALITIES OF A TAILLESS TRIANGULAR-WING AIRPLANE CONFIGURATION AS OBTAINED FROM FLIGHTS OF ROCKET-PROPELLED MODELS AT TRANSONIC AND LOW SUPERSONIC SPEEDS. Grady L. Mitcham, Joseph E. Stevens, and Harry P. Norris. November 1956. 57p. diagrs., photos., tabs. (NACA TN 3753. Supersedes RM L9L07)

THEORETICAL LIFT DUE TO WING INCIDENCE OF SLENDER WING-BODY-TAIL COMBINATIONS AT ZERO ANGLE OF ATTACK. Alvin H. Sacks. November 1956. 35p. diagrs. (NACA TN 3796)

A STUDY OF SEVERAL FACTORS AFFECTING THE STABILITY CONTRIBUTED BY A HORIZONTAL TAIL AT VARIOUS VERTICAL POSITIONS ON A SWEPTBACK-WING AIRPLANE MODEL. Gerald V. Foster and Roland F. Griner. November 1956. 28p. diagrs., tab. (NACA TN 3848. Supersedes RM L9H19)

EXPERIMENTAL INVESTIGATION AT LOW SPEED OF THE EFFECTS OF WING POSITION ON THE STATIC STABILITY OF MODELS HAVING FUSELAGES OF VARIOUS CROSS SECTION AND UNSWEPT AND 45° SWEPTBACK SURFACES. William Letko. November 1956. 77p. diagrs., photo., tabs. (NACA TN 3857)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS TO DETERMINE THE EFFECT OF ASPECT RATIO AND END PLATES ON A RECTANGULAR WING WITH JET FLAPS DEFLECTED 85°. John G. Lowry and Raymond D. Vogler. December 1956. 21p. diagrs., tab. (NACA TN 3863)

WIND-TUNNEL INVESTIGATION OF JET-AUGMENTED FLAPS ON A RECTANGULAR WING TO HIGH MOMENTUM COEFFICIENTS. Vernard E. Lockwood, Thomas R. Turner, and John M. Riebe. December 1956. 51p. diagrs., tab. (NACA TN 3865)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS IN PITCH OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. Thomas J. King, Jr., and Thomas B. Pasteur, Jr. December 1956. 36p. diagrs., photos., tab. (NACA TN 3867. Supersedes RM L53E20)

SUBSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECT OF FUSELAGE AFTERBODY ON DIRECTIONAL STABILITY OF WING-FUSELAGE COMBINATIONS AT HIGH ANGLES OF ATTACK. Edward C. Polhamus and Kenneth P. Spreemann. December 1956. 25p. diagrs., photo., tab. (NACA TN 3896)

WIND-TUNNEL INVESTIGATION OF AN EXTERNAL-FLOW JET-AUGMENTED SLOTTED FLAP SUITABLE FOR APPLICATION TO AIRPLANES WITH POD-MOUNTED JET ENGINES. John P. Campbell and Joseph L. Johnson, Jr. December 1956. 47p. diagrs., tab. (NACA TN 3898)

INVESTIGATION OF THE EFFECTIVENESS OF BOUNDARY-LAYER CONTROL BY BLOWING OVER A COMBINATION OF SLIDING AND PLAIN FLAPS IN DEFLECTING A PROPELLER SLIPSTREAM DOWNWARD FOR VERTICAL TAKE-OFF. Kenneth P. Spreemann and Richard E. Kuhn. December 1956. 44p. diagrs., photo. (NACA TN 3904)

FLIGHT INVESTIGATION OF A ROLL-STABILIZED MISSILE CONFIGURATION AT VARYING ANGLES OF ATTACK AT MACH NUMBERS BETWEEN 0.8 AND 1.79. Jacob Zarovsky and Robert A. Gardiner. January 1957. 36p. diagrs., photos., tab. (NACA TN 3915. Supersedes RM L50H21)

EFFECT OF PROPELLER LOCATION AND FLAP DEFLECTION ON THE AERODYNAMIC CHARACTERISTICS OF A WING-PROPELLER COMBINATION FOR ANGLES OF ATTACK FROM 0° TO 80°. William A. Newsom, Jr. January 1957. 45p. diagrs. (NACA TN 3917)

INVESTIGATION OF EFFECTIVENESS OF A WING EQUIPPED WITH A 50-PERCENT-CHORD SLIDING FLAP, A 30-PERCENT-CHORD SLOTTED FLAP, AND A 30-PERCENT-CHORD SLAT IN DEFLECTING PROPELLER SLIPSTREAMS DOWNWARD FOR VERTICAL TAKE-OFF. Richard E. Kuhn. January 1957. 39p. diagrs., photo., tab. (NACA TN 3919)

WIND-TUNNEL INVESTIGATION OF EFFECT OF PROPELLER SLIPSTREAMS ON AERODYNAMIC CHARACTERISTICS OF A WING EQUIPPED WITH A 50-PERCENT-CHORD SLIDING FLAP AND A 30-PERCENT-CHORD SLOTTED FLAP. Richard E. Kuhn and William C. Hayes, Jr. February 1957. 72p. diagrs., photo., tab. (NACA TN 3918)

INVESTIGATION OF THE EFFECTS OF LEADING-EDGE CHORD-EXTENSIONS AND FENCES IN COMBINATION WITH LEADING-EDGE FLAPS ON THE AERODYNAMIC CHARACTERISTICS AT MACH NUMBERS FROM 0.40 TO 0.93 OF A 45° SWEPTBACK WING OF ASPECT RATIO 4. Kenneth P. Spreemann and William J. Alford, Jr. April 1957. 45p. diagrs., photo., tabs. (NACA TN 3845. Supersedes RM L53A09a)

EFFECTS OF FUSELAGE NOSE LENGTH AND A CANOPY ON THE STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF 45° SWEPTBACK AIRPLANE MODELS HAVING FUSELAGES WITH SQUARE CROSS SECTIONS. Byron M. Jaquet and H. S. Fletcher. April 1957. 47p. diagrs., photos., tabs. (NACA TN 3961)

SOME EFFECTS OF TAIL HEIGHT AND WING PLAN FORM ON THE STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A SMALL-SCALE MODEL AT HIGH SUBSONIC SPEEDS. Albert G. Few, Jr., and Thomas J. King, Jr. May 1957. 62p. diagrs., photo. (NACA TN 3957. Supersedes RM L54G12)

EFFECTS OF HORIZONTAL-TAIL POSITION AND A WING LEADING-EDGE MODIFICATION CONSISTING OF A FULL-SPAN FLAP AND A PARTIAL-SPAN CHORD-EXTENSION ON THE AERODYNAMIC CHARACTERISTICS IN PITCH AT HIGH SUBSONIC SPEEDS OF A MODEL WITH A 45° SWEPTBACK WING. William D. Morrison, Jr., and William J. Alford, Jr. June 1957. 37p. diagrs., photo., tab. (NACA TN 3952. Supersedes RM L53E06)

INVESTIGATION AT TRANSONIC SPEEDS OF DEFLECTORS AND SPOILERS AS GUST ALLEVIATORS ON A 35° SWEPT WING. TRANSONIC-BUMP METHOD. Delwin R. Croom and Jarrett K. Huffman. June 1957. 19p. diagrs. (NACA TN 4006)

INVESTIGATION AT LOW SPEEDS OF DEFLECTORS AND SPOILERS AS GUST ALLEVIATORS ON A MODEL OF THE BELL X-5 AIRPLANE WITH 35° SWEPT WINGS AND ON A HIGH-ASPECT-RATIO 35° SWEPT-WING–FUSELAGE MODEL. Delwin R. Croom and Jarrett K. Huffman. June 1957. 37p. diagrs., tab. (NACA TN 4057)

(1.8.1.1.2) Lateral

RESULTS OF PRELIMINARY FLIGHT TESTS OF THE XS-1 AIRPLANE (8-PERCENT WING) TO A MACH NUMBER OF 1.25. W. C. Williams and De E. Beeler. April 6, 1948. 14p. diagrs. (NACA RM L8A23a)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. STATIC LATERAL AND DIRECTIONAL STABILITY CHARACTERISTICS AS MEASURED IN SIDESLIPS AT MACH NUMBERS UP TO 0.87. S. A. Sjoberg. May 19, 1950. 29p. diagrs., photos., tab. (NACA RM L50C14)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECT OF SIDESLIP ON AERODYNAMIC CHARACTERISTICS AT A MACH NUMBER OF 1.4 WITH THE WING TWISTED AND CAMBERED. Henry C. Lessing. September 29, 1950. 28p. diagrs., photos. (NACA RM A50F09)

CALCULATIONS OF THE DYNAMIC LATERAL STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II AIRPLANE IN HIGH-SPEED FLIGHT FOR VARIOUS WING LOADINGS AND ALTITUDES. M. J. Queijo and Alex Goodman. October 3, 1950. 31p. diagrs., tabs. (NACA RM L50H16a)

WIND-TUNNEL INVESTIGATION OF A RAM-JET CANARD MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.60. M. Leroy Spearman and Ross B. Robinson. August 1952. 63p. diagrs., photo., tabs. (NACA RM L52E15)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. SWEEP SERIES. Richard E. Kuhn and Paul G. Fournier. September 1952. 30p. diagrs., photos. (NACA RM L52G11a)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. James W. Wiggins and Paul G. Fournier. April 1953. 25p. diagrs., photos. (NACA RM L53B25a)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL AND STATIC LATERAL STABILITY CHARACTERISTICS OF A WING-FUSELAGE COMBINATION HAVING A TRIANGULAR WING OF ASPECT RATIO 2.31 AND AN NACA 65A003 AIRFOIL. James W. Wiggins. August 1953. 28p. diagrs., photos. (NACA RM L53G09a)

LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS IN SIDESLIP OF A DELTA-WING-FUSELAGE MODEL WITH HORN-BALANCE-TYPE AILERONS AND WITH AND WITHOUT NACELLES. William I. Scallion. August 1953. 31p. diagrs., photo., tabs. (NACA RM L53G09b)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS IN PITCH AND SIDESLIP AT HIGH SUBSONIC SPEEDS OF A WING-FUSELAGE COMBINATION HAVING A TRIANGULAR WING OF ASPECT RATIO 4. Paul G. Fournier. August 1953. 23p. diagrs., photos. (NACA RM L53G14a)

STATIC LATERAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A 47.7° SWEPTBACK WING OF ASPECT RATIO 6 AND THE CONTRIBUTION OF VARIOUS MODEL COMPONENTS AT A REYNOLDS NUMBER OF 4.45×10^6. Roland F. Griner. September 1953. 83p. diagrs., photos., tabs. (NACA RM L53G09)

CALCULATED LATERAL FREQUENCY RESPONSE AND LATERAL OSCILLATORY CHARACTERISTICS FOR SEVERAL HIGH-SPEED AIRPLANES IN VARIOUS FLIGHT CONDITIONS. Byron M. Jaquet. December 1953. 72p. diagrs., tabs. (NACA RM L53J01)

MEASURED AND ESTIMATED LATERAL STATIC AND ROTARY DERIVATIVES OF A 1/12-SCALE MODEL OF A HIGH-SPEED FIGHTER AIRPLANE WITH UNSWEPT WINGS. James L. Williams. January 1954. 24p. diagrs., photos., tab. (NACA RM L53K09)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STABILITY CHARACTERISTICS OF A COMPLETE MODEL HAVING SWEPTBACK-, M-, W-, AND CRANKED-WING PLAN FORMS AND SEVERAL HORIZONTAL-TAIL LOCATIONS. Kenneth W. Goodson and Robert E. Becht. May 1954. 72p. diagrs., photo. (NACA RM L54C29)

A WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE LATERAL CONTROL CHARACTERISTICS OF VARIOUS PLAIN SPOILER CONFIGURATIONS ON A 3-PERCENT-THICK 60° DELTA WING. Harleth G. Wiley. May 1954. 45p. diagrs., tabs. (NACA RM L54D01)

SUBSONIC FLIGHT INVESTIGATION OF METHODS TO IMPROVE THE DAMPING OF LATERAL OSCILLATIONS BY MEANS OF A VISCOUS DAMPER IN THE RUDDER SYSTEM IN CONJUNCTION WITH ADJUSTED HINGE-MOMENT PARAMETERS. Harold L. Crane, George J. Hurt, Jr., and John M. Elliott. June 1954. 46p. diagrs., photos., tab. (NACA RM L54D09)

A FLIGHT EVALUATION OF THE STABILITY AND CONTROL OF THE X-4 SWEPT-WING SEMITAILLESS AIRPLANE. Melvin Sadoff and A. Scott Crossfield. August 1954. 48p. diagrs., photos., tab. (NACA RM H54G16)

TESTS IN THE AMES 40- BY 80-FOOT WIND TUNNEL OF THE AERODYNAMIC CHARACTERISTICS OF AIRPLANE MODELS WITH PLAIN SPOILER AILERONS. Ralph W. Franks. December 1954. 47p. diagrs., photo., tabs. (NACA RM A54H26)

AERODYNAMIC LOADING CHARACTERISTICS IN SIDESLIP OF A 45° SWEPTBACK WING WITH AND WITHOUT A FENCE AT HIGH SUBSONIC SPEEDS. Richard E. Kuhn and Andrew L. Byrnes, Jr. January 1955. 40p. diagrs., photo., tab. (NACA RM L54K15)

EXPERIMENTAL DETERMINATION OF THE AERODYNAMIC DERIVATIVES ARISING FROM ACCELERATION IN SIDESLIP FOR A TRIANGULAR, A SWEPT, AND AN UNSWEPT WING. Donald R. Riley, John D. Bird, and Lewis R. Fisher. March 1955. 27p. diagrs., photos. (NACA RM L55A07)

THE STATIC LATERAL AND DIRECTIONAL SUBSONIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Howard F. Savage and Bruce E. Tinling. April 1955. 82p. diagrs., photo., tabs. (NACA RM A55B11)

THE EFFECTS OF FLEXIBILITY ON THE LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE OF A LARGE AIRPLANE. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. May 1955. 16p. diagrs. (NACA RM A55D14)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING TANKS AND SPEED BRAKES ON THE STATIC STABILITY OF A MODEL HAVING A 40° SWEPT WING. William C. Sleeman, Jr., and William J. Alford, Jr. May 1955. 62p. diagrs., photo., tabs. (NACA RM L55C17)

EFFECTS OF SPANWISE LOCATION OF SWEEP DISCONTINUITY ON THE LOW-SPEED STATIC LATERAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL WITH WINGS OF M AND W PLAN FORM. Paul G. Fournier. May 1955. 33p. diagrs., photo. (NACA RM L55D22)

SOME FACTORS AFFECTING THE VARIATION OF PITCHING MOMENT WITH SIDESLIP OF AIRCRAFT CONFIGURATIONS. Edward C. Polhamus. July 1955. 29p. diagrs. (NACA RM L55E20b)

LOW-SPEED STUDY OF THE EFFECT OF FREQUENCY ON THE STABILITY DERIVATIVES OF WINGS OSCILLATING IN YAW WITH PARTICULAR REFERENCE TO HIGH ANGLE-OF-ATTACK CONDITIONS. John P. Campbell, Joseph L. Johnson, Jr., and Donald E. Hewes. November 1955. 93p. diagrs., photos., tab. (NACA RM L55H05)

THEORETICAL SPAN LOAD DISTRIBUTIONS AND ROLLING MOMENTS FOR SIDESLIPPING WINGS OF ARBITRARY PLAN FORM IN INCOMPRESSIBLE FLOW. M. J. Queijo. 1956. ii, 15p. diagrs. (NACA Rept. 1269. Supersedes TN 3605)

LOW-SPEED STATIC STABILITY CHARACTERISTICS OF A COMPLETE MODEL WITH AN M-WING IN MID AND HIGH POSITIONS AND WITH THREE HORIZONTAL-TAIL HEIGHTS. Paul G. Fournier. January 1956. 32p. diagrs. (NACA RM L55J06)

EXPERIMENTAL DETERMINATION OF THE EFFECTS OF FREQUENCY AND AMPLITUDE ON THE LATERAL STABILITY DERIVATIVES FOR A DELTA, A SWEPT, AND AN UNSWEPT WING OSCILLATING IN YAW. Lewis R. Fisher. April 1956. 67p. diagrs., photos. (NACA RM L56A19)

WIND-TUNNEL INVESTIGATION TO DETERMINE THE HORIZONTAL- AND VERTICAL-TAIL CONTRIBUTIONS TO THE STATIC LATERAL STABILITY CHARACTERISTICS OF A COMPLETE-MODEL SWEPT-WING CONFIGURATION AT HIGH SUBSONIC SPEEDS. James W. Wiggins, Richard E. Kuhn, and Paul G. Fournier. November 1956. 34p. diagrs., photo. (NACA TN 3818. Supersedes RM L53E19)

EXPERIMENTAL INVESTIGATION AT LOW SPEED OF THE EFFECTS OF WING POSITION ON THE STATIC STABILITY OF MODELS HAVING FUSELAGES OF VARIOUS CROSS SECTION AND UNSWEPT AND 45° SWEPTBACK SURFACES. William Letko. November 1956. 77p. diagrs., photo., tabs. (NACA TN 3857)

EXPERIMENTAL AND PREDICTED LATERAL-DIRECTIONAL DYNAMIC-RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Stuart C. Brown and Euclid C. Holleman. December 1956. 74p. diagrs., photo., tabs. (NACA TN 3874)

SUBSONIC WIND-TUNNEL INVESTIGATION OF THE EFFECT OF FUSELAGE AFTERBODY ON DIRECTIONAL STABILITY OF WING-FUSELAGE COMBINATIONS AT HIGH ANGLES OF ATTACK. Edward C. Polhamus and Kenneth P. Spreemann. December 1956. 25p. diagrs., photo., tab. (NACA TN 3896)

EXPERIMENTAL INVESTIGATION OF THE FORCES AND MOMENTS DUE TO SIDESLIP OF A SERIES OF TRIANGULAR VERTICAL- AND HORIZONTAL-TAIL COMBINATIONS AT MACH NUMBERS OF 1.62, 1.93, AND 2.41. Donald E. Coletti. March 1957. 32p. diagrs., photo., tabs. (NACA TN 3846. Supersedes RM L54G01)

EFFECTS OF FUSELAGE NOSE LENGTH AND A CANOPY ON THE STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF 45° SWEPTBACK AIRPLANE MODELS HAVING FUSELAGES WITH SQUARE CROSS SECTIONS. Byron M. Jaquet and H. S. Fletcher. April 1957. 47p. diagrs., photos., tabs. (NACA TN 3961)

INVESTIGATION AT LOW SPEEDS OF DEFLECTORS AND SPOILERS AS GUST ALLEVIATORS ON A MODEL OF THE BELL X-5 AIRPLANE WITH 35° SWEPT WINGS AND ON A HIGH-ASPECT-RATIO 35° SWEPT-WING—FUSELAGE MODEL. Delwin R. Croom and Jarrett K. Huffman. June 1957. 37p. diagrs., tab. (NACA TN 4057)

(1.8.1.1.3) Directional

FLIGHT INVESTIGATION TO DETERMINE THE AERODYNAMIC CHARACTERISTICS OF ROCKET-POWERED MODELS REPRESENTATIVE OF A FIGHTER-TYPE AIRPLANE CONFIGURATION INCORPORATING AN INVERSE-TAPER WING AND A VEE TAIL. Sidney R. Alexander. November 2, 1948. 29p. diagrs., photos., tab. (NACA RM L8G29)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. STATIC LATERAL AND DIRECTIONAL STABILITY CHARACTERISTICS AS MEASURED IN SIDESLIPS AT MACH NUMBERS UP TO 0.87. S. A. Sjoberg. May 19, 1950. 29p. diagrs., photos., tab. (NACA RM L50C14)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECT OF SIDESLIP ON AERODYNAMIC CHARACTERISTICS AT A MACH NUMBER OF 1.4 WITH THE WING TWISTED AND CAMBERED. Henry C. Lessing. September 29, 1950. 28p. diagrs., photos. (NACA RM A50F09)

CALCULATIONS OF THE DYNAMIC LATERAL STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II AIRPLANE IN HIGH-SPEED FLIGHT FOR VARIOUS WING LOADINGS AND ALTITUDES. M. J. Queijo and Alex Goodman. October 3, 1950. 31p. diagrs., tabs. (NACA RM L50H16a)

WIND-TUNNEL INVESTIGATION OF A RAM-JET CANARD MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.60. M. Leroy Spearman and Ross B. Robinson. August 1952. 63p. diagrs., photo., tabs. (NACA RM L52E15)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED STATIC AND ROTARY STABILITY DERIVATIVES OF A 0.13-SCALE MODEL OF THE DOUGLAS D-558-II AIRPLANE IN THE LANDING CONFIGURATION. M. J. Queijo and Evalyn G. Wells. August 1952. 17p. diagrs., photo., tab. (NACA RM L52G07)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. SWEEP SERIES. Richard E. Kuhn and Paul G. Fournier. September 1952. 30p. diagrs., photos. (NACA RM L52G11a)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. James W. Wiggins and Paul G. Fournier. April 1953. 25p. diagrs., photos. (NACA RM L53B25a)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE STATIC LONGITUDINAL AND STATIC LATERAL STABILITY CHARACTERISTICS OF A WING-FUSELAGE COMBINATION HAVING A TRIANGULAR WING OF ASPECT RATIO 2.31 AND AN NACA 65A003 AIRFOIL. James W. Wiggins. August 1953. 28p. diagrs., photos. (NACA RM L53G09a)

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FLIGHT TEST RESULTS OF ROCKET-PROPELLED BUFFET-RESEARCH MODELS HAVING 45° SWEPTBACK WINGS AND 45° SWEPTBACK TAILS LOCATED IN THE WING CHORD PLANE. Homer P. Mason. October 1953. 26p. diagrs., photos., tab. (NACA RM L53I10)

CALCULATED LATERAL FREQUENCY RESPONSE AND LATERAL OSCILLATORY CHARACTERISTICS FOR SEVERAL HIGH-SPEED AIRPLANES IN VARIOUS FLIGHT CONDITIONS. Byron M. Jaquet. December 1953. 72p. diagrs., tabs. (NACA RM L53J01)

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SUBSONIC FLIGHT INVESTIGATION OF METHODS TO IMPROVE THE DAMPING OF LATERAL OSCILLATIONS BY MEANS OF A VISCOUS DAMPER IN THE RUDDER SYSTEM IN CONJUNCTION WITH ADJUSTED HINGE-MOMENT PARAMETERS. Harold L. Crane, George J. Hurt, Jr., and John M. Elliott. June 1954. 46p. diagrs., photos., tab. (NACA RM L54D09)

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THE EFFECTS OF FLEXIBILITY ON THE LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE OF A LARGE AIRPLANE. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. May 1955. 16p. diagrs. (NACA RM A55D14)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING TANKS AND SPEED BRAKES ON THE STATIC STABILITY OF A MODEL HAVING A 40° SWEPT WING. William C. Sleeman, Jr., and William J. Alford, Jr. May 1955. 62p. diagrs., photo., tabs. (NACA RM L55C17)

EFFECTS OF SPANWISE LOCATION OF SWEEP DISCONTINUITY ON THE LOW-SPEED STATIC LATERAL STABILITY CHARACTERISTICS OF A COMPLETE MODEL WITH WINGS OF M AND W PLAN FORM. Paul G. Fournier. May 1955. 33p. diagrs., photo. (NACA RM L55D22)

RECENT STABILITY AND AERODYNAMIC PROBLEMS AND THEIR IMPLICATIONS AS TO LOAD ESTIMATION. Charles H. Zimmerman. June 1955. 12p. diagrs. (NACA RM L55E11a)

LOW-SPEED STUDY OF THE EFFECT OF FREQUENCY ON THE STABILITY DERIVATIVES OF WINGS OSCILLATING IN YAW WITH PARTICULAR REFERENCE TO HIGH ANGLE-OF-ATTACK CONDITIONS. John P. Campbell, Joseph L. Johnson, Jr., and Donald E. Hewes. November 1955. 93p. diagrs., photos., tab. (NACA RM L55H05)

LOW-SPEED STATIC STABILITY CHARACTERISTICS OF A COMPLETE MODEL WITH AN M-WING IN MID AND HIGH POSITIONS AND WITH THREE HORIZONTAL-TAIL HEIGHTS. Paul G. Fournier. January 1956. 32p. diagrs. (NACA RM L55J06)

COMPARISON OF FLIGHT AND WIND-TUNNEL MEASUREMENTS OF HIGH-SPEED-AIRPLANE STABILITY AND CONTROL CHARACTERISTICS. Walter C. Williams, Hubert M. Drake, and Jack Fischel. (The information in this report was also contained in a paper by the same authors which was presented to Wind Tunnel and Model Testing Panel of Advisory Group for Aeronautical Research and Development, Brussels, Belgium, August 27-31, 1956). August 1956. 16p. diagrs. (NACA TN 3859)

WIND-TUNNEL INVESTIGATION TO DETERMINE THE HORIZONTAL- AND VERTICAL-TAIL CONTRIBUTIONS TO THE STATIC LATERAL STABILITY CHARACTERISTICS OF A COMPLETE-MODEL SWEPT-WING CONFIGURATION AT HIGH SUBSONIC SPEEDS. James W. Wiggins, Richard E. Kuhn, and Paul G. Fournier. November 1956. 34p. diagrs., photo. (NACA TN 3818. Supersedes RM L53E19)

EXPERIMENTAL INVESTIGATION AT LOW SPEED OF THE EFFECTS OF WING POSITION ON THE STATIC STABILITY OF MODELS HAVING FUSELAGES OF VARIOUS CROSS SECTION AND UNSWEPT AND 45° SWEPTBACK SURFACES. William Letko. November 1956. 77p. diagrs., photo., tabs. (NACA TN 3857)

EFFECTS OF VERTICAL FINS NEAR THE NOSE OF THE FUSELAGE ON THE DIRECTIONAL AND DAMPING-IN-YAW STABILITY DERIVATIVES OF AN AIRPLANE MODEL UNDER STEADY-STATE AND OSCILLATORY CONDITIONS. M. J. Queijo and Evalyn G. Wells. December 1956. 54p. diagrs., photo., tab. (NACA TN 3814)

EXPERIMENTAL AND PREDICTED LATERAL-DIRECTIONAL DYNAMIC-RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Stuart C. Brown and Euclid C. Holleman. December 1956. 74p. diagrs., photo., tabs. (NACA TN 3874)

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(1.8.1.2) DYNAMIC

THEORETICAL INVESTIGATION OF THE STABILITY AT NEGATIVE STATIC MARGINS OF A SUPERSONIC MISSILE WITH AN AUTOPILOT SENSITIVE TO PITCH ANGLE AND PITCHING VELOCITY. Henry A. Cole, Jr., and Marvin Abramovitz. March 1952. 28p. diagrs., tab. (NACA RM A52A14)

THE INFLUENCE OF THE CONTROL-SURFACE-SERVO NATURAL FREQUENCY UPON THE TRANSIENT CHARACTERISTICS OF A FLIGHT-PATH-ANGLE CONTROL SYSTEM INCORPORATING A SUPERSONIC MISSILE. Anthony L. Passera and Thomas F. Bridgland, Jr. December 1953. 22p. diagrs., photo., tabs. (NACA RM L53J15)

EFFECT OF WING FLEXIBILITY ON THE DAMPING IN ROLL OF A NOTCHED DELTA WING-BODY COMBINATION BETWEEN MACH NUMBERS 0.6 AND APPROXIMATELY 2.2 AS DETERMINED WITH ROCKET-PROPELLED MODELS. William M. Bland, Jr. June 1954. 20p. diagrs., photos. (NACA RM L54E04)

DEVELOPMENT OF A NEW FLUTTER TESTING TECHNIQUE USING A TOWED DYNAMIC AIRPLANE MODEL EQUIPPED WITH AN AUTOMATIC STABILIZING SYSTEM. EXPERIMENTAL AND CALCULATED DYNAMIC STABILITY CHARACTERISTICS FOR SPEEDS UP TO 200 MPH. William C. Schneider. March 1955. 50p. diagrs., photo., tabs. (NACA RM L54L23)

RECENT STABILITY AND AERODYNAMIC PROBLEMS AND THEIR IMPLICATIONS AS TO LOAD ESTIMATION. Charles H. Zimmerman. June 1955. 12p. diagrs. (NACA RM L55E11a)

TRANSITION-FLIGHT TESTS OF A MODEL OF A LOW-WING TRANSPORT VERTICAL-TAKE-OFF AIRPLANE WITH TILTING WING AND PROPELLERS. Powell M. Lovell, Jr., and Lysle P. Parlett. September 1956. 30p. diagrs., photo., tab. (NACA TN 3745)

THE MOTIONS OF ROLLING SYMMETRICAL MISSILES REFERRED TO A BODY-AXIS SYSTEM. Robert L. Nelson. November 1956. 51p. diagrs. (NACA TN 3737)

INCOMPLETE TIME RESPONSE TO A UNIT IMPULSE AND ITS APPLICATION TO LIGHTLY DAMPED LINEAR SYSTEMS. James J. Donegan and Carl R. Huss. December 1956. 17p. diagrs. (NACA TN 3897)

FLIGHT INVESTIGATION OF A ROLL-STABILIZED MISSILE CONFIGURATION AT VARYING ANGLES OF ATTACK AT MACH NUMBERS BETWEEN 0.8 AND 1.79. Jacob Zarovsky and Robert A. Gardiner. January 1957. 36p. diagrs., photos., tab. (NACA TN 3915. Supersedes RM L50H21)

THE APPLICATION OF MATRIX METHODS TO COORDINATE TRANSFORMATIONS OCCURRING IN SYSTEMS STUDIES INVOLVING LARGE MOTIONS OF AIRCRAFT. Brian F. Doolin. May 1957. 36p. (NACA TN 3968)

(1.8.1.2.1) Longitudinal

FLIGHT-TEST EVALUATION OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF 0.5-SCALE MODELS OF THE LARK PILOTLESS-AIRCRAFT CONFIGURATION. David G. Stone. February 6, 1948. 60p. diagrs., photos., tabs. (NACA RM L7I26)

RESULTS OF PRELIMINARY FLIGHT TESTS OF THE XS-1 AIRPLANE (8-PERCENT WING) TO A MACH NUMBER OF 1.25. W. C. Williams and De E. Beeler. April 6, 1948. 14p. diagrs. (NACA RM L8A23a)

RESULTS OBTAINED DURING ACCELERATED TRANSONIC TESTS OF THE BELL XS-1 AIRPLANE IN FLIGHTS TO A MACH NUMBER OF 0.92. Hubert M. Drake, Milton D. McLaughlin, and Harold R. Goodman. April 19, 1948. 22p. diagrs., tab. (NACA RM L8A05a)

PRELIMINARY RESULTS FROM A FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION WITH A THIN STRAIGHT WING OF ASPECT RATIO 3. Clarence L. Gillis, Robert F. Peck, and A. James Vitale. February 14, 1950. 53p. diagrs., photos., tabs. (NACA RM L9K25a)

INVESTIGATION OF THE DYNAMIC LONGITUDINAL STABILITY OF TWO EQUAL-SIZE MODELS COUPLED IN TANDEM WITH A SINGLE JOINT. PRELIMINARY MODEL FLIGHT TESTS. Robert E. Shanks and David Grana. November 13, 1950. 14p. diagrs., tab. (NACA RM L50H17)

(1) AERODYNAMICS

DYNAMIC LONGITUDINAL STABILITY AND CONTROL OF TANDEM-COUPLED BOMBER-FIGHTER AIRPLANE MODELS WITH RIGID AND PITCH-FREE COUPLINGS. David C. Grana and Donald E. Hewes. January 22, 1951. 12p. diagrs., tabs. (NACA RM L50L14)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.70 TO 1.37 OF ROCKET-PROPELLED MODELS HAVING A MODIFIED TRIANGULAR WING. Rowe Chapman, Jr., and John D. Morrow. May 1952. 35p. diagrs., photos., tab. (NACA RM L52A31)

FLIGHT INVESTIGATION FROM MACH NUMBER 0.8 TO MACH NUMBER 2.0 TO DETERMINE SOME EFFECTS OF WING-TO-TAIL DISTANCE ON THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° DELTA-WING-CANARD MISSILE. Clarence A. Brown, Jr., and Reginald R. Lundstrom. June 1952. 42p. diagrs., photos. (NACA RM L52C26)

THE EFFECTS OF OSCILLATION AMPLITUDE AND FREQUENCY ON THE EXPERIMENTAL DAMPING IN PITCH OF A TRIANGULAR WING HAVING AN ASPECT RATIO OF 4. Benjamin H. Beam. September 1952. 44p. diagrs., photo., tab. (NACA RM A52G07)

LONGITUDINAL FREQUENCY-RESPONSE AND STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II AIRPLANE AS DETERMINED FROM TRANSIENT RESPONSE TO A MACH NUMBER OF 0.96. Euclid C. Holleman. September 1952. 35p. diagrs., tabs. (NACA RM L52E02)

THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° DELTA-WING MISSILE HAVING HALF-DELTA TIP CONTROLS AS OBTAINED FROM A FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS. Martin T. Moul and Hal T. Baber, Jr. October 1952. 35p. diagrs., photos. (NACA RM L52H14)

EFFECTS OF WING ELASTICITY ON THE AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WINGS AS OBTAINED FROM FREE-FLIGHT ROCKET-MODEL TESTS AT TRANSONIC SPEEDS. A. James Vitale. January 1953. 49p. diagrs., photos., tab. (NACA RM L52L30)

FLIGHT INVESTIGATION OF A SUPERSONIC CANARD MISSILE EQUIPPED WITH AN AUXILIARY DAMPING-IN-PITCH CONTROL SYSTEM. Martin T. Moul. February 1953. 31p. diagrs., photos., tabs. (NACA RM L52K14b)

A TRANSONIC INVESTIGATION BY THE FREE-FALL METHOD OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WING AND TAIL SURFACES. Stanley Faber and John M. Eggleston. June 1953. 41p. diagrs., photos., tabs. (NACA RM L53D10)

PRELIMINARY FLIGHT MEASUREMENTS OF THE DYNAMIC LONGITUDINAL STABILITY CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE. Euclid C. Holleman, John H. Evans, and William C. Triplett. June 1953. 17p. diagrs., tab. (NACA RM L53E14)

INVESTIGATION OF THE USE OF A STICK FORCE PROPORTIONAL TO PITCHING ACCELERATION FOR NORMAL-ACCELERATION WARNING. Marvin Abramovitz, Stanley F. Schmidt, and Rudolph D. Van Dyke, Jr. August 1953. 23p. diagrs., tab. (NACA RM A53E21)

FREE-FLIGHT LONGITUDINAL-STABILITY INVESTIGATION INCLUDING SOME EFFECTS OF WING ELASTICITY FROM MACH NUMBERS OF 0.85 TO 1.34 OF A TAILLESS MISSILE CONFIGURATION HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 5.5. Richard G. Arbic and Warren Gillespie, Jr. August 1953. 30p. diagrs., photos., tabs. (NACA RM L53F18)

AN ANALYTICAL STUDY OF SIDESLIP ANGLES AND VERTICAL-TAIL LOADS IN ROLLING PULLOUTS AS AFFECTED BY SOME CHARACTERISTICS OF MODERN HIGH-SPEED AIRPLANE CONFIGURATIONS. Ralph W. Stone, Jr. October 1953. 41p. diagrs., tabs. (NACA RM L53G21)

DAMPING-IN-PITCH CHARACTERISTICS AT HIGH SUBSONIC AND TRANSONIC SPEEDS OF FOUR 35° SWEPTBACK WINGS. William B. Kemp, Jr., and Robert E. Becht. October 1953. 21p. diagrs., tab. (NACA RM L53G29a)

LONGITUDINAL STABILITY AND TRIM OF TWO ROCKET-PROPELLED AIRPLANE MODELS HAVING 45° SWEPTBACK WINGS AND TAILS WITH THE HORIZONTAL TAIL MOUNTED IN TWO POSITIONS. James H. Parks and Alan B. Kehlet. December 1953. 26p. diagrs., photos. (NACA RM L53J12a)

THREE-DEGREE-OF-FREEDOM EVALUATION OF THE LONGITUDINAL TRANSFER FUNCTIONS OF A SUPERSONIC CANARD MISSILE CONFIGURATION INCLUDING CHANGES IN FORWARD SPEED. Ernest C. Seaberg. April 1954. 29p. diagrs., photo., tabs. (NACA RM L54C02)

EXPERIMENTAL EVIDENCE OF SUSTAINED COUPLED LONGITUDINAL AND LATERAL OSCILLATIONS FROM A ROCKET-PROPELLED MODEL OF A 35° SWEPT WING AIRPLANE CONFIGURATION. James H. Parks. May 1954. 28p. diagrs., photos., tab. (NACA RM L54D15)

A FLIGHT EVALUATION OF THE STABILITY AND CONTROL OF THE X-4 SWEPT-WING SEMITAILLESS AIRPLANE. Melvin Sadoff and A. Scott Crossfield. August 1954. 48p. diagrs., photos., tab. (NACA RM H54G16)

EXPERIMENTAL AND PREDICTED LONGITUDINAL RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. November 1954. 63p. diagrs., photo., tabs. (NACA RM A54H09)

FLIGHT INVESTIGATION OF THE EFFECTS OF HORIZONTAL-TAIL HEIGHT, MOMENT OF INERTIA, AND CONTROL EFFECTIVENESS ON THE PITCH-UP CHARACTERISTICS OF A 35° SWEPT-WING FIGHTER AIRPLANE AT HIGH SUBSONIC SPEEDS. Norman M. McFadden and Donovan R. Heinle. January 1955. 24p. diagrs., photos., tab. (NACA RM A54F21)

FLIGHT TESTS OF A DELTA-WING VERTICALLY RISING AIRPLANE MODEL POWERED BY A DUCTED FAN. Powell M. Lovell, Jr. April 1955. 23p. diagrs., photos., tab. (NACA RM L55B17)

THE EFFECTS OF FLEXIBILITY ON THE LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE OF A LARGE AIRPLANE. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. May 1955. 16p. diagrs. (NACA RM A55D14)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Maurice D. White. June 1955. 39p. diagrs., photos., tabs. (NACA RM A55D18)

A THEORETICAL ANALYSIS OF THE EFFECT OF ENGINE ANGULAR MOMENTUM ON LONGITUDINAL AND DIRECTIONAL STABILITY IN STEADY ROLLING MANEUVERS. Ordway B. Gates, Jr., and C. H. Woodling. October 1955. 20p. diagrs., tab. (NACA RM L55G05)

A WIND-TUNNEL TEST TECHNIQUE FOR MEASURING THE DYNAMIC ROTARY STABILITY DERIVATIVES AT SUBSONIC AND SUPERSONIC SPEEDS. Benjamin H. Beam. 1956. ii, 14p. diagrs., photos. (NACA Rept. 1258. Supersedes TN 3347)

A SIMPLIFIED METHOD FOR APPROXIMATING THE TRANSIENT MOTION IN ANGLES OF ATTACK AND SIDESLIP DURING A CONSTANT ROLLING MANEUVER. Leonard Sternfield. August 1956. 38p. diagrs., tabs. (NACA RM L56F04)

STABILITY DERIVATIVES OF CONES AT SUPERSONIC SPEEDS. Murray Tobak and William R. Wehrend. September 1956. 43p. diagrs. (NACA TN 3788)

FLIGHT INVESTIGATION OF THE STABILITY AND CONTROL CHARACTERISTICS OF A VERTICALLY RISING AIRPLANE RESEARCH MODEL WITH SWEPT OR UNSWEPT WINGS AND ×- OR +-TAILS. Robert H. Kirby. October 1956. 30p. diagrs., photos. (NACA TN 3812)

AERODYNAMIC CHARACTERISTICS AND FLYING QUALITIES OF A TAILLESS TRIANGULAR-WING AIRPLANE CONFIGURATION AS OBTAINED FROM FLIGHTS OF ROCKET-PROPELLED MODELS AT TRANSONIC AND LOW SUPERSONIC SPEEDS. Grady L. Mitcham, Joseph E. Stevens, and Harry P. Norris. November 1956. 57p. diagrs., photos., tabs. (NACA TN 3753. Supersedes RM L9L07)

MEASUREMENT OF THE LONGITUDINAL MOMENT OF INERTIA OF A FLEXIBLE AIRPLANE. Henry A. Cole, Jr., and Frances L. Bennion. November 1956. 30p. diagrs., photos., tabs. (NACA TN 3870. Supersedes RM A55J21)

EFFECTS OF WING POSITION AND VERTICAL-TAIL CONFIGURATION ON STABILITY AND CONTROL CHARACTERISTICS OF A JET-POWERED DELTA-WING VERTICALLY RISING AIRPLANE MODEL. Powell M. Lovell, Jr., and Lysle P. Parlett. January 1957. 35p. diagrs., photos., tab. (NACA TN 3899)

THEORETICAL INVESTIGATION OF THE EFFECT OF RUDDER AND STABILIZER DEFLECTIONS ON THE ANGLES OF ATTACK AND SIDESLIP IN RAPID ROLLS. C. H. Woodling. March 1957. 43p. diagrs., tabs. (NACA RM L57A30a)

FLIGHT TESTS OF A MODEL OF A HIGH-WING TRANSPORT VERTICAL-TAKE-OFF AIRPLANE WITH TILTING WING AND PROPELLERS AND WITH JET CONTROLS AT THE REAR OF THE FUSELAGE FOR PITCH AND YAW CONTROL. Powell M. Lovell, Jr., and Lysle P. Parlett. March 1957. 28p. diagrs., photo., tab. (NACA TN 3912)

LIFT AND MOMENT RESPONSES TO PENETRATION OF SHARP-EDGED TRAVELING GUSTS, WITH APPLICATION TO PENETRATION OF WEAK BLAST WAVES. Joseph A. Drischler and Franklin W. Diederich. May 1957. 85p. diagrs., tabs. (NACA TN 3956)

CHARTS FOR ESTIMATING THE EFFECTS OF SHORT-PERIOD STABILITY CHARACTERISTICS ON AIRPLANE VERTICAL-ACCELERATION AND PITCH-ANGLE RESPONSE IN CONTINUOUS ATMOSPHERIC TURBULENCE. Kermit G. Pratt and Floyd V. Bennett. June 1957. 61p. diagrs., tabs. (NACA TN 3992)

(1.8.1.2.2)
Lateral and Directional

ANALYSIS OF THE EFFECTS OF VARIOUS MASS, AERODYNAMIC, AND DIMENSIONAL PARAMETERS ON THE DYNAMIC LATERAL STABILITY OF THE DOUGLAS D-558-2 AIRPLANE. M. J. Queijo and W. H. Michael, Jr. April 15, 1949. 33p. diagrs., tabs. (NACA RM L9A24)

PRELIMINARY MEASUREMENTS OF THE DYNAMIC LATERAL STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II (BUAERO NO. 37974) AIRPLANE. Sigurd A. Sjoberg. August 18, 1949. 8p. diagrs., tab. (NACA RM L9G18)

CALCULATIONS OF THE DYNAMIC LATERAL STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II AIRPLANE IN HIGH-SPEED FLIGHT FOR VARIOUS WING LOADINGS AND ALTITUDES. M. J. Queijo and Alex Goodman. October 3, 1950. 31p. diagrs., tabs. (NACA RM L50H16a)

FREE-FLIGHT-TUNNEL INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A TIP-TO-TIP BOMBER-FIGHTER COUPLED AIRPLANE CONFIGURATION. Charles V. Bennett and Robert B. Cadman. April 4, 1951. 16p. diagrs., tab. (NACA RM L51A12)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. DYNAMIC LATERAL STABILITY. W. H. Stillwell and J. V. Wilmerding. June 18, 1951. 36p. diagrs., photos., tabs. (NACA RM L51C23)

OBSERVATIONS OF UNSTEADY FLOW PHENOMENA FOR AN INCLINED BODY FITTED WITH STABILIZING FINS. Merrill H. Mead. January 1952. 23p. diagrs., photos. (NACA RM A51K05)

AN ANALYSIS OF THE LATERAL STABILITY OF THE DOUGLAS D-558-II AIRPLANE EQUIPPED WITH A YAW DAMPER, WITH SPECIAL REFERENCE TO THE EFFECT OF YAW-DAMPER RATE-GYRO SPIN-AXIS ORIENTATION. Ordway B. Gates, Jr., Albert A. Schy, and C. H. Woodling. March 1953. 36p. diagrs., tabs. (NACA RM L52K14a)

A FLIGHT INVESTIGATION OF THE EFFECTS OF VARIED LATERAL DAMPING ON THE EFFECTIVENESS OF A FIGHTER AIRPLANE AS A GUN PLATFORM. Helmut A. Kuehnel, Arnold R. Beckhardt, and Robert A. Champine. August 1953. 30p. diagrs., photo., tabs. (NACA RM L53F08a)

AN ANALYTICAL STUDY OF SIDESLIP ANGLES AND VERTICAL-TAIL LOADS IN ROLLING PULLOUTS AS AFFECTED BY SOME CHARACTERISTICS OF MODERN HIGH-SPEED AIRPLANE CONFIGURATIONS. Ralph W. Stone, Jr. October 1953. 41p. diagrs., tabs. (NACA RM L53G21)

CALCULATED LATERAL FREQUENCY RESPONSE AND LATERAL OSCILLATORY CHARACTERISTICS FOR SEVERAL HIGH-SPEED AIRPLANES IN VARIOUS FLIGHT CONDITIONS. Byron M. Jaquet. December 1953. 72p. diagrs., tabs. (NACA RM L53J01)

MEASURED AND ESTIMATED LATERAL STATIC AND ROTARY DERIVATIVES OF A 1/12-SCALE MODEL OF A HIGH-SPEED FIGHTER AIRPLANE WITH UNSWEPT WINGS. James L. Williams. January 1954. 24p. diagrs., photos., tab. (NACA RM L53K09)

EXPERIMENTAL EVIDENCE OF SUSTAINED COUPLED LONGITUDINAL AND LATERAL OSCILLATIONS FROM A ROCKET-PROPELLED MODEL OF A 35° SWEPT WING AIRPLANE CONFIGURATION. James H. Parks. May 1954. 28p. diagrs., photos., tab. (NACA RM L54D15)

SUBSONIC FLIGHT INVESTIGATION OF METHODS TO IMPROVE THE DAMPING OF LATERAL OSCILLATIONS BY MEANS OF A VISCOUS DAMPER IN THE RUDDER SYSTEM IN CONJUNCTION WITH ADJUSTED HINGE-MOMENT PARAMETERS. Harold L. Crane, George J. Hurt, Jr., and John M. Elliott. June 1954. 46p. diagrs., photos., tab. (NACA RM L54D09)

A FLIGHT INVESTIGATION OF THE EFFECTS OF INCLINATION OF THE PRINCIPAL AXIS OF INERTIA ON THE DYNAMIC LATERAL STABILITY OF THE REPUBLIC XF-91 AIRPLANE. Thomas W. Finch. July 1954. 19p. diagrs., photos., tab. (NACA RM L53I28)

A FLIGHT EVALUATION OF THE STABILITY AND CONTROL OF THE X-4 SWEPT-WING SEMITAILLESS AIRPLANE. Melvin Sadoff and A. Scott Crossfield. August 1954. 48p. diagrs., photos., tab. (NACA RM H54G16)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEEDS TO DETERMINE THE ROLLING-STABILITY DERIVATIVES OF THREE WING-FUSELAGE CONFIGURATIONS. William C. Sleeman, Jr. October 1954. 43p. diagrs. (NACA RM L54H11)

CALCULATED EFFECTS OF THE LATERAL ACCELERATION DERIVATIVES ON THE DYNAMIC LATERAL STABILITY OF A DELTA-WING AIRPLANE. John P. Campbell and Carroll H. Woodling. January 1955. 22p. diagrs., tabs. (NACA RM L54K26)

EXPERIMENTAL DETERMINATION OF THE AERODYNAMIC DERIVATIVES ARISING FROM ACCELERATION IN SIDESLIP FOR A TRIANGULAR, A SWEPT, AND AN UNSWEPT WING. Donald R. Riley, John D. Bird, and Lewis R. Fisher. March 1955. 27p. diagrs., photos. (NACA RM L55A07)

FLIGHT TESTS OF A DELTA-WING VERTICALLY RISING AIRPLANE MODEL POWERED BY A DUCTED FAN. Powell M. Lovell, Jr. April 1955. 23p. diagrs., photos., tab. (NACA RM L55B17)

THE EFFECTS OF FLEXIBILITY ON THE LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE OF A LARGE AIRPLANE. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. May 1955. 16p. diagrs. (NACA RM A55D14)

A THEORETICAL ANALYSIS OF THE EFFECT OF ENGINE ANGULAR MOMENTUM ON LONGITUDINAL AND DIRECTIONAL STABILITY IN STEADY ROLLING MANEUVERS. Ordway B. Gates, Jr., and C. H. Woodling. October 1955. 20p. diagrs., tab. (NACA RM L55G05)

A WIND-TUNNEL TEST TECHNIQUE FOR MEASURING THE DYNAMIC ROTARY STABILITY DERIVATIVES AT SUBSONIC AND SUPERSONIC SPEEDS. Benjamin H. Beam. 1956. ii, 14p. diagrs., photos. (NACA Rept. 1258. Supersedes TN 3347)

THEORETICAL CALCULATIONS OF THE PRESSURES, FORCES, AND MOMENTS AT SUPERSONIC SPEEDS DUE TO VARIOUS LATERAL MOTIONS ACTING ON THIN ISOLATED VERTICAL TAILS. Kenneth Margolis and Percy J. Bobbitt. 1956. ii, 44p. diagrs., tabs. (NACA Rept. 1268. Supersedes TN 3373; TN 3240)

EXPERIMENTAL DETERMINATION OF THE EFFECTS OF FREQUENCY AND AMPLITUDE ON THE LATERAL STABILITY DERIVATIVES FOR A DELTA, A SWEPT, AND AN UNSWEPT WING OSCILLATING IN YAW. Lewis R. Fisher. April 1956. 67p. diagrs., photos. (NACA RM L56A19)

A SIMPLIFIED METHOD FOR APPROXIMATING THE TRANSIENT MOTION IN ANGLES OF ATTACK AND SIDESLIP DURING A CONSTANT ROLLING MANEUVER. Leonard Sternfield. August 1956. 38p. diagrs., tabs. (NACA RM L56F04)

AN INVESTIGATION OF THE LOADS ON THE VERTICAL TAIL OF A JET-BOMBER AIRPLANE RESULTING FROM FLIGHT THROUGH ROUGH AIR. Jack Funk and Richard H. Rhyne. October 1956. 36p. diagrs., tabs. (NACA TN 3741)

A SIMPLE METHOD FOR CALCULATING THE CHARACTERISTICS OF THE DUTCH ROLL MOTION OF AN AIRPLANE. Bernard B. Klawans. October 1956. 16p. diagrs., tabs. (NACA TN 3754)

CALCULATION OF THE FORCES AND MOMENTS ON A SLENDER FUSELAGE AND VERTICAL FIN PENETRATING LATERAL GUSTS. John M. Eggleston. October 1956. 20p. diagrs., tab. (NACA TN 3805)

FLIGHT INVESTIGATION OF THE STABILITY AND CONTROL CHARACTERISTICS OF A VERTICALLY RISING AIRPLANE RESEARCH MODEL WITH SWEPT OR UNSWEPT WINGS AND × - OR + -TAILS. Robert H. Kirby. October 1956. 30p. diagrs., photos. (NACA TN 3812)

EXPERIMENTAL STEADY-STATE YAWING DERIVATIVES OF A 60° DELTA-WING MODEL AS AFFECTED BY CHANGES IN VERTICAL POSITION OF THE WING AND IN RATIO OF FUSELAGE DIAMETER TO WING SPAN. Byron M. Jaquet and Herman S. Fletcher. October 1956. 20p. diagrs., tab. (NACA TN 3843)

EFFECTS OF VERTICAL FINS NEAR THE NOSE OF THE FUSELAGE ON THE DIRECTIONAL AND DAMPING-IN-YAW STABILITY DERIVATIVES OF AN AIRPLANE MODEL UNDER STEADY-STATE AND OSCILLATORY CONDITIONS. M. J. Queijo and Evalyn G. Wells. December 1956. 54p. diagrs., photo., tab. (NACA TN 3814)

THEORETICAL CALCULATION OF THE POWER SPECTRA OF THE ROLLING AND YAWING MOMENTS ON A WING IN RANDOM TURBULENCE. John M. Eggleston and Franklin W. Diederich. December 1956. 56p. diagrs., tabs. (NACA TN 3864)

EXPERIMENTAL AND PREDICTED LATERAL-DIRECTIONAL DYNAMIC-RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Stuart C. Brown and Euclid C. Holleman. December 1956. 74p. diagrs., photo., tabs. (NACA TN 3874)

EFFECTS OF WING POSITION AND VERTICAL-TAIL CONFIGURATION ON STABILITY AND CONTROL CHARACTERISTICS OF A JET-POWERED DELTA-WING VERTICALLY RISING AIRPLANE MODEL. Powell M. Lovell, Jr., and Lysle P. Parlett. January 1957. 35p. diagrs., photos., tab. (NACA TN 3899)

THEORETICAL INVESTIGATION OF THE EFFECT OF RUDDER AND STABILIZER DEFLECTIONS ON THE ANGLES OF ATTACK AND SIDESLIP IN RAPID ROLLS. C. H. Woodling. March 1957. 43p. diagrs., tabs. (NACA RM L57A30a)

EXPERIMENTAL INVESTIGATION OF THE FORCES AND MOMENTS DUE TO SIDESLIP OF A SERIES OF TRIANGULAR VERTICAL- AND HORIZONTAL-TAIL COMBINATIONS AT MACH NUMBERS OF 1.62, 1.93, AND 2.41. Donald E. Coletti. March 1957. 32p. diagrs., photo., tabs. (NACA TN 3846. Supersedes RM L54G01)

FLIGHT TESTS OF A MODEL OF A HIGH-WING TRANSPORT VERTICAL-TAKE-OFF AIRPLANE WITH TILTING WING AND PROPELLERS AND WITH JET CONTROLS AT THE REAR OF THE FUSELAGE FOR PITCH AND YAW CONTROL. Powell M. Lovell, Jr., and Lysle P. Parlett. March 1957. 28p. diagrs., photo., tab. (NACA TN 3912)

A THEORY FOR THE LATERAL RESPONSE OF AIRPLANES TO RANDOM ATMOSPHERIC TURBULENCE. John M. Eggleston. May 1957. i, 75p. diagrs., tabs. (NACA TN 3954)

(1.8.1.2.3)
Damping Derivatives

PRELIMINARY RESULTS FROM A FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION WITH A THIN STRAIGHT WING OF ASPECT RATIO 3. Clarence L. Gillis, Robert F. Peck, and A. James Vitale. February 14, 1950. 53p. diagrs., photos., tabs. (NACA RM L9K25a)

(1) AERODYNAMICS

CALCULATIONS OF THE DYNAMIC LATERAL STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II AIRPLANE IN HIGH-SPEED FLIGHT FOR VARIOUS WING LOADINGS AND ALTITUDES. M. J. Queijo and Alex Goodman. October 3, 1950. 31p. diagrs., tabs. (NACA RM L50H16a)

DAMPING IN ROLL OF A MISSILE CONFIGURATION WITH A MODIFIED TRIANGULAR WING AND A CRUCIFORM TAIL AT A MACH NUMBER OF 1.52. Richard Scherrer and David H. Dennis. March 6, 1951. 23p. diagrs., photo., tab. (NACA RM A51A03)

FLIGHT INVESTIGATION AT SUBSONIC, TRANSONIC, AND SUPERSONIC VELOCITIES OF THE HINGE-MOMENT CHARACTERISTICS, LATERAL-CONTROL EFFECTIVENESS, AND WING DAMPING IN ROLL OF A 60° SWEPTBACK DELTA WING WITH HALF-DELTA TIP AILERONS. (Revised.) C. William Martz and James D. Church. September 1951. 32p. diagrs., photos. (NACA RM L51G18)

DAMPING IN ROLL OF ROCKET-POWERED TEST VEHICLES HAVING SWEPT, TAPERED WINGS OF LOW ASPECT RATIO. E. Claude Sanders, Jr., and James L. Edmondson. October 1951. 25p. diagrs., photos., tab. (NACA RM L51G06)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.70 TO 1.37 OF ROCKET-PROPELLED MODELS HAVING A MODIFIED TRIANGULAR WING. Rowe Chapman, Jr., and John D. Morrow. May 1952. 35p. diagrs., photos., tab. (NACA RM L52A31)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED STATIC AND ROTARY STABILITY DERIVATIVES OF A 0.13-SCALE MODEL OF THE DOUGLAS D-558-II AIRPLANE IN THE LANDING CONFIGURATION. M. J. Queijo and Evalyn G. Wells. August 1952. 17p. diagrs., photo., tab. (NACA RM L52G07)

THE EFFECTS OF OSCILLATION AMPLITUDE AND FREQUENCY ON THE EXPERIMENTAL DAMPING IN PITCH OF A TRIANGULAR WING HAVING AN ASPECT RATIO OF 4. Benjamin H. Beam. September 1952. 44p. diagrs., photo., tab. (NACA RM A52G07)

LONGITUDINAL FREQUENCY-RESPONSE AND STABILITY CHARACTERISTICS OF THE DOUGLAS D-558-II AIRPLANE AS DETERMINED FROM TRANSIENT RESPONSE TO A MACH NUMBER OF 0.96. Euclid C. Holleman. September 1952. 35p. diagrs., tabs. (NACA RM L52E02)

ROCKET-MODEL INVESTIGATION OF LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING A 60° DELTA WING AND A HIGH UNSWEPT HORIZONTAL TAIL. Robert F. Peck and Jesse L. Mitchell. January 1953. 28p. diagrs., photo. (NACA RM L52K04a)

EFFECTS OF WING ELASTICITY ON THE AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WINGS AS OBTAINED FROM FREE-FLIGHT ROCKET-MODEL TESTS AT TRANSONIC SPEEDS. A. James Vitale. January 1953. 49p. diagrs., photos., tab. (NACA RM L52L30)

STATIC AEROELASTIC PHENOMENA OF M-, W-, AND Λ-WINGS. Franklin W. Diederich and Kenneth A. Foss. February 1953. ii, 111p. diagrs., tabs. (NACA RM L52J21)

A TRANSONIC INVESTIGATION BY THE FREE-FALL METHOD OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WING AND TAIL SURFACES. Stanley Faber and John M. Eggleston. June 1953. 41p. diagrs., photos., tabs. (NACA RM L53D10)

PRELIMINARY FLIGHT MEASUREMENTS OF THE DYNAMIC LONGITUDINAL STABILITY CHARACTERISTICS OF THE CONVAIR XF-92A DELTA-WING AIRPLANE. Euclid C. Holleman, John H. Evans, and William C. Triplett. June 1953. 17p. diagrs., tab. (NACA RM L53E14)

FREE-FLIGHT LONGITUDINAL-STABILITY INVESTIGATION INCLUDING SOME EFFECTS OF WING ELASTICITY FROM MACH NUMBERS OF 0.85 TO 1.34 OF A TAILLESS MISSILE CONFIGURATION HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 5.5. Richard G. Arbic and Warren Gillespie, Jr. August 1953. 30p. diagrs., photos., tabs. (NACA RM L53F18)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A RECTANGULAR WING OF ASPECT RATIO 2 OSCILLATING ABOUT THE MIDCHORD. Edward Widmayer, Jr., Sherman A. Clevenson, and Sumner A. Leadbetter. August 1953. 45p. diagrs., tabs. (NACA RM L53F19)

DAMPING-IN-PITCH CHARACTERISTICS AT HIGH SUBSONIC AND TRANSONIC SPEEDS OF FOUR 35° SWEPTBACK WINGS. William B. Kemp, Jr., and Robert E. Becht. October 1953. 21p. diagrs., tab. (NACA RM L53G29a)

AERODYNAMIC CHARACTERISTICS OF A CANARD-BALANCED, FREE-FLOATING, ALL-MOVABLE STABILIZER AS OBTAINED FROM ROCKET-POWERED-MODEL FLIGHT TESTS AND LOW-SPEED WIND-TUNNEL TESTS. William N. Gardner. December 1953. 65p. diagrs., photos., tabs. (NACA RM L53I28a)

CALCULATED LATERAL FREQUENCY RESPONSE AND LATERAL OSCILLATORY CHARACTERISTICS FOR SEVERAL HIGH-SPEED AIRPLANES IN VARIOUS FLIGHT CONDITIONS. Byron M. Jaquet. December 1953. 72p. diagrs., tabs. (NACA RM L53J01)

LONGITUDINAL STABILITY AND TRIM OF TWO ROCKET-PROPELLED AIRPLANE MODELS HAVING 45° SWEPTBACK WINGS AND TAILS WITH THE HORIZONTAL TAIL MOUNTED IN TWO POSITIONS. James H. Parks and Alan B. Kehlet. December 1953. 26p. diagrs., photos. (NACA RM L53J12a)

MEASURED AND ESTIMATED LATERAL STATIC AND ROTARY DERIVATIVES OF A 1/12-SCALE MODEL OF A HIGH-SPEED FIGHTER AIRPLANE WITH UNSWEPT WINGS. James L. Williams. January 1954. 24p. diagrs., photos., tab. (NACA RM L53K09)

FLIGHT INVESTIGATION OF THE ROLLING EFFECTIVENESS OF FINGERED SEMAPHORE SPOILERS ON A TAPERED 45° SWEPTBACK WING BETWEEN MACH NUMBERS 0.6 AND 1.3. James D. Church. January 1954. 27p. diagrs., photos. (NACA RM L53K20)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS TO DETERMINE THE ROLLING DERIVATIVES OF TWO WING-FUSELAGE COMBINATIONS HAVING TRIANGULAR WINGS, INCLUDING A SEMIEMPIRICAL METHOD OF ESTIMATING THE ROLLING DERIVATIVES. James W. Wiggins. February 1954. 32p. diagrs. (NACA RM L53L18a)

WIND-TUNNEL INVESTIGATION OF EFFECT OF SWEEP ON ROLLING DERIVATIVES AT ANGLES OF ATTACK UP TO 13° AND AT HIGH SUBSONIC MACH NUMBERS, INCLUDING A SEMIEMPIRICAL METHOD OF ESTIMATING THE ROLLING DERIVATIVES. James W. Wiggins. April 1954. 47p. diagrs., tab. (NACA RM L54C26)

EFFECT OF WING FLEXIBILITY ON THE DAMPING IN ROLL OF A NOTCHED DELTA WING-BODY COMBINATION BETWEEN MACH NUMBERS 0.6 AND APPROXIMATELY 2.2 AS DETERMINED WITH ROCKET-PROPELLED MODELS. William M. Bland, Jr. June 1954. 20p. diagrs., photos. (NACA RM L54E04)

EXPERIMENTAL INVESTIGATION AT HIGH SUBSONIC SPEEDS TO DETERMINE THE ROLLING-STABILITY DERIVATIVES OF THREE WING-FUSELAGE CONFIGURATIONS. William C. Sleeman, Jr. October 1954. 43p. diagrs. (NACA RM L54H11)

CALCULATED EFFECTS OF THE LATERAL ACCELERATION DERIVATIVES ON THE DYNAMIC LATERAL STABILITY OF A DELTA-WING AIRPLANE. John P. Campbell and Carroll H. Woodling. January 1955. 22p. diagrs., tabs. (NACA RM L54K26)

EXPERIMENTAL DETERMINATION OF THE AERODYNAMIC DERIVATIVES ARISING FROM ACCELERATION IN SIDESLIP FOR A TRIANGULAR, A SWEPT, AND AN UNSWEPT WING. Donald R. Riley, John D. Bird, and Lewis R. Fisher. March 1955. 27p. diagrs., photos. (NACA RM L55A07)

LOW-SPEED STUDY OF THE EFFECT OF FREQUENCY ON THE STABILITY DERIVATIVES OF WINGS OSCILLATING IN YAW WITH PARTICULAR REFERENCE TO HIGH ANGLE-OF-ATTACK CONDITIONS. John P. Campbell, Joseph L. Johnson, Jr., and Donald E. Hewes. November 1955. 93p. diagrs., photos., tab. (NACA RM L55H05)

A WIND-TUNNEL TEST TECHNIQUE FOR MEASURING THE DYNAMIC ROTARY STABILITY DERIVATIVES AT SUBSONIC AND SUPERSONIC SPEEDS. Benjamin H. Beam. 1956. ii, 14p. diagrs., photos. (NACA Rept. 1258. Supersedes TN 3347)

THEORETICAL CALCULATIONS OF THE PRESSURES, FORCES, AND MOMENTS AT SUPERSONIC SPEEDS DUE TO VARIOUS LATERAL MOTIONS ACTING ON THIN ISOLATED VERTICAL TAILS. Kenneth Margolis and Percy J. Bobbitt. 1956. ii, 44p. diagrs., tabs. (NACA Rept. 1268. Supersedes TN 3373; TN 3240)

PRELIMINARY MEASUREMENTS OF THE AERODYNAMIC YAWING DERIVATIVES OF A TRIANGULAR, A SWEPT, AND AN UNSWEPT WING PERFORMING PURE YAWING OSCILLATIONS, WITH A DESCRIPTION OF THE INSTRUMENTATION EMPLOYED. M. J. Queijo, Herman S. Fletcher, C. G. Marple, and F. M. Hughes. April 1956. 35p. diagrs., photos. (NACA RM L55L14)

EXPERIMENTAL DETERMINATION OF THE EFFECTS OF FREQUENCY AND AMPLITUDE ON THE LATERAL STABILITY DERIVATIVES FOR A DELTA, A SWEPT, AND AN UNSWEPT WING OSCILLATING IN YAW. Lewis R. Fisher. April 1956. 67p. diagrs., photos. (NACA RM L56A19)

STABILITY DERIVATIVES OF CONES AT SUPERSONIC SPEEDS. Murray Tobak and William R. Wehrend. September 1956. 43p. diagrs. (NACA TN 3788)

A SIMPLE METHOD FOR CALCULATING THE CHARACTERISTICS OF THE DUTCH ROLL MOTION OF AN AIRPLANE. Bernard B. Klawans. October 1956. 16p. diagrs., tabs. (NACA TN 3754)

EXPERIMENTAL STEADY-STATE YAWING DERIVATIVES OF A 60° DELTA-WING MODEL AS AFFECTED BY CHANGES IN VERTICAL POSITION OF THE WING AND IN RATIO OF FUSELAGE DIAMETER TO WING SPAN. Byron M. Jaquet and Herman S. Fletcher. October 1956. 20p. diagrs., tab. (NACA TN 3843)

AERODYNAMIC CHARACTERISTICS AND FLYING QUALITIES OF A TAILLESS TRIANGULAR-WING AIRPLANE CONFIGURATION AS OBTAINED FROM FLIGHTS OF ROCKET-PROPELLED MODELS AT TRANSONIC AND LOW SUPERSONIC SPEEDS. Grady L. Mitcham, Joseph E. Stevens, and Harry P. Norris. November 1956. 57p. diagrs., photos., tabs. (NACA TN 3753. Supersedes RM L9L07)

EFFECTS OF VERTICAL FINS NEAR THE NOSE OF THE FUSELAGE ON THE DIRECTIONAL AND DAMPING-IN-YAW STABILITY DERIVATIVES OF AN AIRPLANE MODEL UNDER STEADY-STATE AND OSCILLATORY CONDITIONS. M. J. Queijo and Evalyn G. Wells. December 1956. 54p. diagrs., photo., tab. (NACA TN 3814)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A WING-TANK CONFIGURATION OSCILLATING IN PITCH ABOUT THE WING MIDCHORD. Sherman A. Clevenson and Sumner A. Leadbetter. December 1956. 37p. diagrs., photo., tab. (NACA TN 3822)

AERODYNAMIC INTERFERENCE OF SLENDER WING-TAIL COMBINATIONS. Alvin H. Sacks. January 1957. 81p. diagrs., photos. (NACA TN 3725)

A COLLECTION OF DATA FOR ZERO-LIFT DAMPING IN ROLL OF WING-BODY COMBINATIONS AS DETERMINED WITH ROCKET-POWERED MODELS EQUIPPED WITH ROLL-TORQUE NOZZLES. David G. Stone. April 1957. 23p. diagrs., tab. (NACA TN 3955. Supersedes RM L53E26)

(1.8.2) CONTROL

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTIVENESS OF AN ELEVON AS A LONGITUDINAL CONTROL AND THE EFFECTS OF CAMBER AND TWIST ON THE MAXIMUM LIFT-DRAG RATIO AT SUPERSONIC SPEEDS. Robert N. Olson and Merrill H. Mead. May 8, 1950. 53p. diagrs., photos. (NACA RM A50A31a)

FLIGHT TESTS OF A DELTA-WING VERTICALLY RISING AIRPLANE MODEL POWERED BY A DUCTED FAN. Powell M. Lovell, Jr. April 1955. 23p. diagrs., photos., tab. (NACA RM L55B17)

(1.8.2.1) LONGITUDINAL

FLIGHT-TEST EVALUATION OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF 0.5-SCALE MODELS OF THE LARK PILOTLESS-AIRCRAFT CONFIGURATION. David G. Stone. February 6, 1948. 60p. diagrs., photos., tabs. (NACA RM L7I26)

RESULTS OF PRELIMINARY FLIGHT TESTS OF THE XS-1 AIRPLANE (8-PERCENT WING) TO A MACH NUMBER OF 1.25. W. C. Williams and De E. Beeler. April 6, 1948. 14p. diagrs. (NACA RM L8A23a)

RESULTS OBTAINED DURING A DIVE RECOVERY OF THE BELL XS-1 AIRPLANE TO HIGH LIFT COEFFICIENTS AT A MACH NUMBER GREATER THAN 1.0. Milton D. McLaughlin and Dorothy C. Clift. April 6, 1948. 6p. diagrs. (NACA RM L8C23a)

RESULTS OBTAINED DURING ACCELERATED TRANSONIC TESTS OF THE BELL XS-1 AIRPLANE IN FLIGHTS TO A MACH NUMBER OF 0.92. Hubert M. Drake, Milton D. McLaughlin, and Harold R. Goodman. April 19, 1948. 22p. diagrs., tab. (NACA RM L8A05a)

HIGH-SPEED WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 1/16-SCALE MODEL OF THE D-558-2 RESEARCH AIRPLANE AT HIGH SUBSONIC MACH NUMBERS AND AT A MACH NUMBER OF 1.2. Robert S. Osborne. April 5, 1949. 87p. diagrs., photos., tabs. (NACA RM L9C04)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS OF SPLIT FLAPS, ELEVONS, AND LEADING-EDGE DEVICES AT LOW SPEED. Edward J. Hopkins. May 19, 1949. 46p. diagrs., photos. (NACA RM A9C21)

LONGITUDINAL TRIM AND DRAG CHARACTERISTICS OF ROCKET-PROPELLED MODELS REPRESENTING TWO AIRPLANE CONFIGURATIONS. James H. Parks and Jesse L. Mitchell. February 6, 1950. 25p. diagrs., photos., tab. (NACA RM L9L22)

PRELIMINARY RESULTS FROM A FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION WITH A THIN STRAIGHT WING OF ASPECT RATIO 3. Clarence L. Gillis, Robert F. Peck, and A. James Vitale. February 14, 1950. 53p. diagrs., photos., tabs. (NACA RM L9K25a)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTIVENESS OF AN ELEVON AS A LONGITUDINAL CONTROL AND THE EFFECTS OF CAMBER AND TWIST ON THE MAXIMUM LIFT-DRAG RATIO AT SUPERSONIC SPEEDS. Robert N. Olson and Merrill H. Mead. May 8, 1950. 53p. diagrs., photos. (NACA RM A50A31a)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS AT MACH NUMBERS UP TO 0.87. S. A. Sjoberg, James R. Peele, and John H. Griffith. January 17, 1951. 48p. diagrs., photos., tab. (NACA RM L50K13)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECTIVENESS OF AN INBOARD ELEVON AS A LONGITUDINAL- AND LATERAL-CONTROL DEVICE AT SUBSONIC AND SUPERSONIC SPEEDS. Frank A. Pfyl. December 1951. 38p. diagrs., photo., tabs. (NACA RM A51I18)

INFLUENCE OF FUSELAGE AND CANARD-TYPE CONTROL SURFACE ON THE FLOW FIELD ADJACENT TO A REARWARD FUSELAGE STATION AT A MACH NUMBER OF 2.0 - DATA PRESENTATION. Evan A. Fradenburgh, Leonard J. Obery, and John F. Mello. January 1952. 25p. diagrs., photos. (NACA RM E51K05)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.70 TO 1.37 OF ROCKET-PROPELLED MODELS HAVING A MODIFIED TRIANGULAR WING. Rowe Chapman, Jr., and John D. Morrow. May 1952. 35p. diagrs., photos., tab. (NACA RM L52A31)

FLIGHT INVESTIGATION FROM MACH NUMBER 0.8 TO MACH NUMBER 2.0 TO DETERMINE SOME EFFECTS OF WING-TO-TAIL DISTANCE ON THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° DELTA-WING-CANARD MISSILE. Clarence A. Brown, Jr., and Reginald R. Lundstrom. June 1952. 42p. diagrs., photos. (NACA RM L52C26)

WIND-TUNNEL INVESTIGATION OF A RAM-JET CANARD MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.60. M. Leroy Spearman and Ross B. Robinson. August 1952. 63p. diagrs., photo., tabs. (NACA RM L52E15)

INVESTIGATION OF VANES IMMERSED IN THE JET OF A SOLID-FUEL ROCKET MOTOR. Leo V. Giladett and Andrew R. Wineman. September 1952. 30p. diagrs., photos., tab. (NACA RM L52F12)

ROCKET-MODEL INVESTIGATION TO DETERMINE THE FORCE AND HINGE-MOMENT CHARACTERISTICS OF A HALF-DELTA TIP CONTROL ON A 59° SWEPTBACK DELTA WING BETWEEN MACH NUMBERS OF 0.55 AND 1.43. C. William Martz, James D. Church, and John W. Goslee. October 1952. 53p. diagrs., photos., tab. (NACA RM L52H06)

THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° DELTA-WING MISSILE HAVING HALF-DELTA TIP CONTROLS AS OBTAINED FROM A FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS. Martin T. Moul and Hal T. Baber, Jr. October 1952. 35p. diagrs., photos. (NACA RM L52H14)

PRELIMINARY MEASUREMENTS OF STATIC LONGITUDINAL STABILITY AND TRIM FOR THE XF-92A DELTA-WING RESEARCH AIRPLANE IN SUBSONIC AND TRANSONIC FLIGHT. Thomas R. Sisk and John M. Mooney. March 1953. 19p. diagrs., photo., tab. (NACA RM L53B06)

SUBSONIC STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A WING-BODY COMBINATION HAVING A POINTED WING OF ASPECT RATIO 2 WITH CONSTANT-PERCENT-CHORD TRAILING-EDGE ELEVONS. Donald W. Smith and Verlin D. Reed. May 1953. 143p. diagrs., photos., tab. (NACA RM A53C20)

A TRANSONIC INVESTIGATION BY THE FREE-FALL METHOD OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WING AND TAIL SURFACES. Stanley Faber and John M. Eggleston. June 1953. 41p. diagrs., photos., tabs. (NACA RM L53D10)

INVESTIGATION OF THE USE OF A STICK FORCE PROPORTIONAL TO PITCHING ACCELERATION FOR NORMAL-ACCELERATION WARNING. Marvin Abramovitz, Stanley F. Schmidt, and Rudolph D. Van Dyke, Jr. August 1953. 23p. diagrs., tab. (NACA RM A53E21)

RESULTS OF MEASUREMENTS OF MAXIMUM LIFT AND BUFFETING INTENSITIES OBTAINED DURING FLIGHT INVESTIGATION OF THE NORTHROP X-4 RESEARCH AIRPLANE. Thomas F. Baker. August 1953. 22p. diagrs., photos., tab. (NACA RM L53G06)

LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS IN SIDESLIP OF A DELTA-WING-FUSELAGE MODEL WITH HORN-BALANCE-TYPE AILERONS AND WITH AND WITHOUT NACELLES. William I. Scallion. August 1953. 31p. diagrs., photo., tabs. (NACA RM L53G09b)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF LOCATION OF A DELTA HORIZONTAL TAIL ON THE LONGITUDINAL STABILITY AND CONTROL OF A FUSELAGE AND THIN DELTA WING WITH DOUBLE SLOTTED FLAPS INCLUDING THE EFFECTS OF A GROUND BOARD. John M. Riebe and Jean C. Graven, Jr. October 1953. 38p. diagrs., tabs. (NACA RM L53H19a)

WIND-TUNNEL INVESTIGATION OF A 45° SWEPTBACK WING HAVING A SYMMETRICAL ROOT AND A HIGHLY CAMBERED TIP, INCLUDING THE EFFECTS OF FENCES AND LATERAL CONTROLS. Joseph W. Cleary and Lee E. Boddy. November 1953. 52p. diagrs., photo. (NACA RM A53I21)

AERODYNAMIC CHARACTERISTICS OF A CANARD-BALANCED, FREE-FLOATING, ALL-MOVABLE STABILIZER AS OBTAINED FROM ROCKET-POWERED-MODEL FLIGHT TESTS AND LOW-SPEED WIND-TUNNEL TESTS. William N. Gardner. December 1953. 65p. diagrs., photos., tabs. (NACA RM L53I28a)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF LOCATION OF A DELTA AND A STRAIGHT TAIL ON THE LONGITUDINAL STABILITY AND CONTROL OF A THIN DELTA WING WITH EXTENDED DOUBLE SLOTTED FLAPS. John M. Riebe and Jean C. Graven, Jr. January 1954. 49p. diagrs., tabs. (NACA RM L53J26)

THE EFFECTS OF HORIZONTAL-TAIL LOCATION AND SIZE ON THE SUBSONIC LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Bruce E. Tinling and Armando E. Lopez. March 1954. 85p. diagrs., photo., tabs. (NACA RM A53L15)

A LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS OF TWO TYPES OF CONTROLS AND BALANCING TABS ON A LARGE-SCALE THIN DELTA-WING—FUSELAGE MODEL. Marvin P. Fink and Bennie W. Cocke. March 1954. 69p. diagrs., photo., tabs. (NACA RM L54B03)

THREE-DEGREE-OF-FREEDOM EVALUATION OF THE LONGITUDINAL TRANSFER FUNCTIONS OF A SUPERSONIC CANARD MISSILE CONFIGURATION INCLUDING CHANGES IN FORWARD SPEED. Ernest C. Seaberg. April 1954. 29p. diagrs., photo., tabs. (NACA RM L54C02)

ROCKET-POWERED-MODEL INVESTIGATION OF THE HINGE-MOMENT AND NORMAL-FORCE CHARACTERISTICS OF A HALF-DIAMOND TIP CONTROL ON A 60° SWEPTBACK DIAMOND WING BETWEEN MACH NUMBERS OF 0.5 AND 1.3. James D. Church. April 1954. 30p. diagrs., photos., tab. (NACA RM L54C10)

FLIGHT INVESTIGATION TO DETERMINE LIFT AND DRAG CHARACTERISTICS OF A CANARD RAM-JET MISSILE CONFIGURATION IN THE MACH NUMBER RANGE OF 0.8 TO 2.0. Abraham A. Gammal and Thomas L. Kennedy. June 1954. 20p. diagrs., photos. (NACA RM L54D28)

A FLIGHT EVALUATION OF THE STABILITY AND CONTROL OF THE X-4 SWEPT-WING SEMITAILLESS AIRPLANE. Melvin Sadoff and A. Scott Crossfield. August 1954. 48p. diagrs., photos., tab. (NACA RM H54G16)

THEORETICAL INVESTIGATION BASED ON EXPERIMENTAL FREQUENCY-RESPONSE MEASUREMENTS OF AN AUTOMATIC ALTITUDE CONTROL IN COMBINATION WITH A SUPERSONIC MISSILE CONFIGURATION. Ernest C. Seaberg, Edward S. Geller, and William W. Willoughby. August 1954. 28p. diagrs., photos. (NACA RM L54F04)

INVESTIGATION OF THE EFFECT OF BALANCING TABS ON THE HINGE-MOMENT CHARACTERISTICS OF A TRAILING-EDGE FLAP-TYPE CONTROL ON A TRAPEZOIDAL WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and Cornelius Driver. August 1954. 23p. diagrs., photo. (NACA RM L54F22)

THE EFFECT OF GROUND ON THE LOW-SPEED AERODYNAMIC, CONTROL, AND CONTROL HINGE-MOMENT CHARACTERISTICS OF A DELTA-WING—FUSELAGE MODEL WITH TRAILING-EDGE CONTROLS. William L Scallion. September 1954. 52p. diagrs., photos., tabs. (NACA RM L54H03)

GROUND TESTS OF THE ELEVATOR POWER CONTROL SYSTEM AND FEEL DEVICE IN A BOEING B-47A AIRPLANE. B. Porter Brown. October 1954. 34p. diagrs. (NACA RM L54G09)

EXPERIMENTAL AND PREDICTED LONGITUDINAL RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. November 1954. 63p. diagrs., photo., tabs. (NACA RM A54H09)

FLIGHT INVESTIGATION OF THE EFFECTS OF HORIZONTAL-TAIL HEIGHT, MOMENT OF INERTIA, AND CONTROL EFFECTIVENESS ON THE PITCH-UP CHARACTERISTICS OF A 35° SWEPT-WING FIGHTER AIRPLANE AT HIGH SUBSONIC SPEEDS. Norman M. McFadden and Donovan R. Heinle. January 1955. 24p. diagrs., photos., tab. (NACA RM A54F21)

THE EFFECTS OF TRAILING-EDGE FLAPS ON THE SUBSONIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Bruce E. Tinling and A. V. Karpen. January 1955. 37p. diagrs., photos., tabs. (NACA RM A54L07)

THE EFFECT OF BLUNT-TRAILING-EDGE ELEVONS ON THE LONGITUDINAL AND LATERAL HANDLING QUALITIES OF THE X-4 SEMITAILLESS AIRPLANE. Edwin J. Saltzman. January 1955. 29p. diagrs., photos., tab. (NACA RM H54K03)

THE EFFECTS OF FLEXIBILITY ON THE LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE OF A LARGE AIRPLANE. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. May 1955. 16p. diagrs. (NACA RM A55D14)

STATIC INVESTIGATION OF SEVERAL JET DEFLECTORS FOR LONGITUDINAL CONTROL OF AN AIRCRAFT. Alfred S. Valerino. June 1955. 19p. diagrs., photos. (NACA RM E55D04)

GROUND EFFECTS ON THE LONGITUDINAL CHARACTERISTICS OF TWO MODELS WITH WINGS HAVING LOW ASPECT RATIO AND POINTED TIPS. Donald A. Buell and Bruce E. Tinling. July 1955. 48p. diagrs., photos., tabs. (NACA RM A55E04)

INVESTIGATION OF EFFECT OF REDUCTION OF VALVE FRICTION IN A POWER CONTROL SYSTEM BY USE OF A VIBRATOR. William H. Phillips. July 1955. 11p. diagrs., photo. (NACA RM L55E18a)

ANALOG STUDY OF THE EFFECTS OF VARIOUS TYPES OF CONTROL FEEL ON THE DYNAMIC CHARACTERISTICS OF A PILOT-AIRPLANE COMBINATION. Charles W. Mathews. August 1955. 13p. diagrs. (NACA RM L55F01a)

AN OPTIMUM SWITCHING CRITERION FOR A THIRD-ORDER CONTACTOR ACCELERATION CONTROL SYSTEM. Anthony L. Passera and Ross G. Willoh, Jr. August 1956. 46p. diagrs., tab. (NACA TN 3743)

COMPARISON OF FLIGHT AND WIND-TUNNEL MEASUREMENTS OF HIGH-SPEED-AIRPLANE STABILITY AND CONTROL CHARACTERISTICS. Walter C. Williams, Hubert M. Drake, and Jack Fischel. (The information in this report was also contained in a paper by the same authors which was presented to Wind Tunnel and Model Testing Panel of Advisory Group for Aeronautical Research and Development, Brussels, Belgium, August 27-31, 1956). August 1956. 16p. diagrs. (NACA TN 3859)

TRANSITION-FLIGHT TESTS OF A MODEL OF A LOW-WING TRANSPORT VERTICAL-TAKE-OFF AIRPLANE WITH TILTING WING AND PROPELLERS. Powell M. Lovell, Jr., and Lysle P. Parlett. September 1956. 30p. diagrs., photo., tab. (NACA TN 3745)

THE RESULTS OF WIND-TUNNEL TESTS TO A MACH NUMBER OF 0.90 OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A WING WITH 40° OF SWEEPBACK AND AN ASPECT RATIO OF 10. George G. Edwards, Jerald K. Dickson, Fred B. Sutton, and Fred A. Demele. September 1956. 171p. diagrs., photo., tabs. (NACA TN 3789. Supersedes RM A53I28)

FLIGHT INVESTIGATION OF THE STABILITY AND CONTROL CHARACTERISTICS OF A VERTICALLY RISING AIRPLANE RESEARCH MODEL WITH SWEPT OR UNSWEPT WINGS AND ×- OR +-TAILS. Robert H. Kirby. October 1956. 30p. diagrs., photos. (NACA TN 3812)

AERODYNAMIC CHARACTERISTICS AND FLYING QUALITIES OF A TAILLESS TRIANGULAR-WING AIRPLANE CONFIGURATION AS OBTAINED FROM FLIGHTS OF ROCKET-PROPELLED MODELS AT TRANSONIC AND LOW SUPERSONIC SPEEDS. Grady L. Mitcham, Joseph E. Stevens, and Harry P. Norris. November 1956. 57p. diagrs., photos., tabs. (NACA TN 3753. Supersedes RM L9L07)

A STUDY OF SEVERAL FACTORS AFFECTING THE STABILITY CONTRIBUTED BY A HORIZONTAL TAIL AT VARIOUS VERTICAL POSITIONS ON A SWEPTBACK-WING AIRPLANE MODEL. Gerald V. Foster and Roland F. Griner. November 1956. 28p. diagrs., tab. (NACA TN 3848. Supersedes RM L9H19)

WIND-TUNNEL INVESTIGATION OF JET-AUGMENTED FLAPS ON A RECTANGULAR WING TO HIGH MOMENTUM COEFFICIENTS. Vernard E. Lockwood, Thomas R. Turner, and John M. Riebe. December 1956. 51p. diagrs., tab. (NACA TN 3865)

WIND-TUNNEL INVESTIGATION OF AN EXTERNAL-FLOW JET-AUGMENTED SLOTTED FLAP SUITABLE FOR APPLICATION TO AIRPLANES WITH POD-MOUNTED JET ENGINES. John P. Campbell and Joseph L. Johnson, Jr. December 1956. 47p. diagrs., tab. (NACA TN 3898)

THEORETICAL INVESTIGATION OF THE EFFECT OF RUDDER AND STABILIZER DEFLECTIONS ON THE ANGLES OF ATTACK AND SIDESLIP IN RAPID ROLLS. C. H. Woodling. March 1957. 43p. diagrs., tabs. (NACA RM L57A30a)

FLIGHT TESTS OF A MODEL OF A HIGH-WING TRANSPORT VERTICAL-TAKE-OFF AIRPLANE WITH TILTING WING AND PROPELLERS AND WITH JET CONTROLS AT THE REAR OF THE FUSELAGE FOR PITCH AND YAW CONTROL. Powell M. Lovell, Jr., and Lysle P. Parlett. March 1957. 28p. diagrs., photo., tab. (NACA TN 3912)

GROUND SIMULATOR STUDIES OF THE EFFECTS OF VALVE FRICTION, STICK FRICTION, FLEXIBILITY, AND BACKLASH ON POWER CONTROL SYSTEM QUALITY. B. Porter Brown. April 1957. 45p. diagrs., photo. (NACA TN 3998)

LIFT AND MOMENT RESPONSES TO PENETRATION OF SHARP-EDGED TRAVELING GUSTS, WITH APPLICATION TO PENETRATION OF WEAK BLAST WAVES. Joseph A. Drischler and Franklin W. Diederich. May 1957. 85p. diagrs., tabs. (NACA TN 3956)

SOME EFFECTS OF VALVE FRICTION AND STICK FRICTION ON CONTROL QUALITY IN A HELICOPTER WITH HYDRAULIC-POWER CONTROL SYSTEMS. B. Porter Brown and John P. Reeder. May 1957. 8p. diagr. (NACA TN 4004)

(1.8.2.2) LATERAL

FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF A WING-AILERON CONFIGURATION SIMULATING THE D-558-2 AIRPLANE. Carl A. Sandahl. July 21, 1948. 10p. diagrs., photo., tab. (NACA RM L8E28)

FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF THE ROLLING EFFECTIVENESS OF A 42.7° SWEPTBACK WING HAVING PARTIAL-SPAN AILERONS. Carl A. Sandahl. October 25, 1948. 13p. diagrs., photo., tab. (NACA RM L8E25)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS OF SPLIT FLAPS, ELEVONS, AND LEADING-EDGE DEVICES AT LOW SPEED. Edward J. Hopkins. May 19, 1949. 46p. diagrs., photos. (NACA RM A9C21)

CONTROL EFFECTIVENESS AND HINGE-MOMENT CHARACTERISTICS OF A TIP CONTROL SURFACE ON A LOW-ASPECT-RATIO POINTED WING AT A MACH NUMBER OF 1.9. D. William Conner and Ellery B. May, Jr. October 5, 1949. 28p. diagrs., photo. (NACA RM L9H26)

CONTROL EFFECTIVENESS LOAD AND HINGE-MOMENT CHARACTERISTICS OF A TIP CONTROL SURFACE ON A DELTA WING AT A MACH NUMBER OF 1.9. D. William Conner and Ellery B. May, Jr. October 7, 1949. 41p. diagrs., photo. (NACA RM L9H05)

COMPARATIVE TESTS OF THE ROLLING EFFECTIVENESS OF CONSTANT-CHORD, FULL-DELTA, AND HALF-DELTA AILERONS ON DELTA WINGS AT TRANSONIC AND SUPERSONIC SPEEDS. Carl A. Sandahl and H. Kurt Strass. December 12, 1949. 26p. diagrs., photos., tab. (NACA RM L9J26)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. LATERAL CONTROL CHARACTERISTICS AS MEASURED IN ABRUPT AILERON ROLLS AT MACH NUMBERS UP TO 0.86. J. V. Wilmerding, W. H. Stillwell, and S. A. Sjoberg. July 20, 1950. 27p. diagrs., photos., tab. (NACA RM L50E17)

THE ROLLING EFFECTIVENESS OF WING-TIP AILERONS AS DETERMINED BY ROCKET-POWERED TEST VEHICLES AND LINEAR SUPERSONIC THEORY. Carl A. Sandahl, H. Kurt Strass, and Robert O. Piland. Appendix: DETERMINATION OF THE THEORETICAL ROLLING EFFECTIVENESS OF WING-TIP AILERONS. Robert O. Piland. August 29, 1950. 32p. diagrs., photo., tab. (NACA RM L50F21)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECTIVENESS AT SUPERSONIC SPEEDS OF A 30-PERCENT CHORD, 50-PERCENT SEMISPAN ELEVON AS A LATERAL CONTROL DEVICE. Robert N. Olson and Merrill H. Mead. January 18, 1951. 39p. diagrs., photo. (NACA RM A50K07)

FLIGHT INVESTIGATION AT SUBSONIC, TRANSONIC, AND SUPERSONIC VELOCITIES OF THE HINGE-MOMENT CHARACTERISTICS, LATERAL-CONTROL EFFECTIVENESS, AND WING DAMPING IN ROLL OF A 60° SWEPTBACK DELTA WING WITH HALF-DELTA TIP AILERONS. (Revised.) C. William Martz and James D. Church. September 1951. 32p. diagrs., photos. (NACA RM L51G18)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECTIVENESS OF AN INBOARD ELEVON AS A LONGITUDINAL- AND LATERAL-CONTROL DEVICE AT SUBSONIC AND SUPERSONIC SPEEDS. Frank A. Pfyl. December 1951. 38p. diagrs., photo., tabs. (NACA RM A51I18)

FREE-FLIGHT INVESTIGATION TO DETERMINE FORCE AND HINGE-MOMENT CHARACTERISTICS AT ZERO ANGLE OF ATTACK OF A 60° SWEPTBACK HALF-DELTA TIP CONTROL ON A 60° SWEPTBACK DELTA WING AT MACH NUMBERS BETWEEN 0.68 AND 1.44. C. William Martz, James D. Church, and John W. Goslee. December 1951. 36p. diagrs., photos. (NACA RM L51I14)

FREE-FLIGHT MEASUREMENTS OF SOME EFFECTS OF AILERON SPAN, CHORD, AND DEFLECTION AND OF WING FLEXIBILITY ON THE ROLLING EFFECTIVENESS OF AILERONS ON SWEPTBACK WINGS AT MACH NUMBERS BETWEEN 0.8 AND 1.6. Eugene D. Schult, H. Kurt Strass, and E. M. Fields. January 1952. 52p. diagrs., photos., tabs. (NACA RM L51K16)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF SPOILERS OF LARGE PROJECTION ON AN NACA 65A006 WING WITH QUARTER-CHORD LINE SWEPT BACK 32.6°. Raymond D. Vogler. January 1952. 31p. diagrs., tab. (NACA RM L51L10)

SOME EFFECTS OF AEROELASTICITY AT MACH NUMBERS FROM 0.7 TO 1.6 ON THE ROLLING EFFECTIVENESS OF THIN FLAT-PLATE DELTA WINGS HAVING 45° SWEPT LEADING EDGES AND FULL-SPAN CONSTANT-CHORD AILERONS. Edward T. Marley and Roland D. English. February 1952. 14p. diagrs., photo. (NACA RM L51L05)

WIND-TUNNEL INVESTIGATION OF A RAM-JET CANARD MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.60. M. Leroy Spearman and Ross B. Robinson. August 1952. 63p. diagrs., photo., tabs. (NACA RM L52E15)

AN INVESTIGATION AT SUBSONIC SPEEDS OF THE ROLLING EFFECTIVENESS OF A SMALL PERFORATED SPOILER ON A WING HAVING 45° OF SWEEPBACK. Angelo Bandettini. September 1952. 37p. diagrs., photos. (NACA RM A52G02)

INVESTIGATION OF VANES IMMERSED IN THE JET OF A SOLID-FUEL ROCKET MOTOR. Leo V. Giladett and Andrew R. Wineman. September 1952. 30p. diagrs., photos., tab. (NACA RM L52F12)

ROCKET-MODEL INVESTIGATION TO DETERMINE THE FORCE AND HINGE-MOMENT CHARACTERISTICS OF A HALF-DELTA TIP CONTROL ON A 59° SWEPTBACK DELTA WING BETWEEN MACH NUMBERS OF 0.55 AND 1.43. C. William Martz, James D. Church, and John W. Goslee. October 1952. 53p. diagrs., photos., tab. (NACA RM L52H06)

CONTROL HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF A 60° HALF-DELTA TIP CONTROL ON A 60° DELTA WING AT MACH NUMBERS OF 1.41 AND 1.96. Lawrence D. Guy. October 1952. 40p. diagrs., photo., tab. (NACA RM L52H13)

SOME EFFECTS OF SPOILER HEIGHT, WING FLEXIBILITY, AND WING THICKNESS ON ROLLING EFFECTIVENESS AND DRAG OF UNSWEPT WINGS AT MACH NUMBERS BETWEEN 0.4 AND 1.7. E. M. Fields. October 1952. 20p. diagrs., photo. (NACA RM L52H18)

CONTROL CHARACTERISTICS OF TRAILING-EDGE SPOILERS ON UNTAPERED BLUNT TRAILING-EDGE WINGS OF ASPECT RATIO 2.7 WITH 0° AND 45° SWEEPBACK AT MACH NUMBERS OF 1.41 AND 1.96. Carl R. Jacobsen. December 1952. 35p. diagrs., photo. (NACA RM L52J28)

CONTROL HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF A HORN-BALANCED, FLAP-TYPE CONTROL ON A 55° SWEPTBACK TRIANGULAR WING OF ASPECT RATIO 3.5 AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Lawrence D. Guy. January 1953. 29p. diagrs., photo., tab. (NACA RM L52L15)

STATIC AEROELASTIC PHENOMENA OF M-, W-, AND A-WINGS. Franklin W. Diederich and Kenneth A. Foss. February 1953. ii, 111p. diagrs., tabs. (NACA RM L52J21)

LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS IN SIDESLIP OF A DELTA-WING-FUSELAGE MODEL WITH HORN-BALANCE-TYPE AILERONS AND WITH AND WITHOUT NACELLES. William I. Scallion. August 1953. 31p. diagrs., photo., tabs. (NACA RM L53G09b)

AN ANALYTICAL STUDY OF SIDESLIP ANGLES AND VERTICAL-TAIL LOADS IN ROLLING PULL-OUTS AS AFFECTED BY SOME CHARACTERISTICS OF MODERN HIGH-SPEED AIRPLANE CONFIGURATIONS. Ralph W. Stone, Jr. October 1953. 41p. diagrs., tabs. (NACA RM L53G21)

WIND-TUNNEL INVESTIGATION OF A 45° SWEPTBACK WING HAVING A SYMMETRICAL ROOT AND A HIGHLY CAMBERED TIP, INCLUDING THE EFFECTS OF FENCES AND LATERAL CONTROLS. Joseph W. Cleary and Lee E. Boddy. November 1953. 52p. diagrs., photo. (NACA RM A53I21)

SOME EFFECTS OF LEADING-EDGE ROUGHNESS ON THE AILERON EFFECTIVENESS AND DRAG OF A THIN RECTANGULAR WING EMPLOYING A FULL-SPAN PLAIN AILERON AT MACH NUMBERS FROM 0.6 TO 1.5. Roland D. English. November 1953. 16p. diagrs., photos. (NACA RM L53I25)

WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE EFFECT OF SPOILER PROFILE ON THE LATERAL CONTROL CHARACTERISTICS OF A WING-FUSELAGE COMBINATION WITH QUARTER-CHORD LINE SWEPT BACK 32.6° AND NACA 65A006 AIRFOIL SECTION. Harold S. Johnson. November 1953. 15p. diagrs. (NACA RM L53J05a)

CALCULATED LATERAL FREQUENCY RESPONSE AND LATERAL OSCILLATORY CHARACTERISTICS FOR SEVERAL HIGH-SPEED AIRPLANES IN VARIOUS FLIGHT CONDITIONS. Byron M. Jaquet. December 1953. 72p. diagrs., tabs. (NACA RM L53J01)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF A SPOILER-SLOT-DEFLECTOR COMBINATION ON AN UNSWEPT NACA 65A006 WING. Raymond D. Vogler. December 1953. 27p. diagrs., 3 tabs. (NACA RM L53J21)

INVESTIGATION AT TRANSONIC SPEEDS OF THE LATERAL-CONTROL AND HINGE-MOMENT CHARACTERISTICS OF A FLAP-TYPE SPOILER AILERON ON A 60° DELTA WING. Harleth G. Wiley and Robert T. Taylor. January 1954. 22p. diagrs. (NACA RM L53J05)

THE TWISTING EFFECT AT TRANSONIC SPEEDS OF SPOILER AILERONS ON A 45° SWEPTBACK, ASPECT-RATIO-4, TAPERED WING. Alexander D. Hammond and Jean C. Graven, Jr. January 1954. 21p. diagrs., photo. (NACA RM L53K03a)

FLIGHT INVESTIGATION OF THE ROLLING EFFECTIVENESS OF FINGERED SEMAPHORE SPOILERS ON A TAPERED 45° SWEPTBACK WING BETWEEN MACH NUMBERS 0.6 AND 1.3. James D. Church. January 1954. 27p. diagrs., photos. (NACA RM L53K20)

SUMMARY OF SOME ROCKET-MODEL INVESTIGATIONS OF EFFECTS OF WING ASPECT RATIO AND THICKNESS ON AILERON ROLLING EFFECTIVENESS INCLUDING SOME EFFECTS OF SPANWISE AILERON LOCATION FOR SWEPTBACK WINGS WITH ASPECT RATIO OF 8.0. H. Kurt Strass. February 1954. 26p. diagrs., photos., tab. (NACA RM L53L11)

FREE-FLIGHT MEASUREMENTS OF THE ROLLING EFFECTIVENESS AND DRAG OF TRAILING-EDGE SPOILERS ON A TAPERED SWEPTBACK WING AT MACH NUMBERS BETWEEN 0.6 AND 1.4. Eugene D. Schult and E. M. Fields. February 1954. 14p. diagrs., photos. (NACA RM L53L14a)

A LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS OF TWO TYPES OF CONTROLS AND BALANCING TABS ON A LARGE-SCALE THIN DELTA-WING—FUSELAGE MODEL. Marvin P. Fink and Bennie W. Cocke. March 1954. 69p. diagrs., photo., tabs. (NACA RM L54B03)

LATERAL CONTROL CHARACTERISTICS OF TWO STRUCTURALLY SIMILAR FLEXIBLE WINGS WITH 45° SWEEP: A SWEPTBACK WING AND A WING WITH M PLAN FORM. Rodger L. Naeseth, Delwin R. Croom, and John W. McKee. April 1954. 44p. diagrs., photo., tabs. (NACA RM L54C19)

A WIND-TUNNEL INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE LATERAL CONTROL CHARACTERISTICS OF VARIOUS PLAIN SPOILER CONFIGURATIONS ON A 3-PERCENT-THICK 60° DELTA WING. Harleth G. Wiley. May 1954. 45p. diagrs., tabs. (NACA RM L54D01)

SUBSONIC FLIGHT INVESTIGATION OF METHODS TO IMPROVE THE DAMPING OF LATERAL OSCILLATIONS BY MEANS OF A VISCOUS DAMPER IN THE RUDDER SYSTEM IN CONJUNCTION WITH ADJUSTED HINGE-MOMENT PARAMETERS. Harold L. Crane, George J. Hurt, Jr., and John M. Elliott. June 1954. 46p. diagrs., photos., tab. (NACA RM L54D09)

A FLIGHT EVALUATION OF THE STABILITY AND CONTROL OF THE X-4 SWEPT-WING SEMITAILLESS AIRPLANE. Melvin Sadoff and A. Scott Crossfield. August 1954. 48p. diagrs., photos., tab. (NACA RM H54G16)

INVESTIGATION OF THE EFFECT OF BALANCING TABS ON THE HINGE-MOMENT CHARACTERISTICS OF A TRAILING-EDGE FLAP-TYPE CONTROL ON A TRAPEZOIDAL WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and Cornelius Driver. August 1954. 23p. diagrs., photo. (NACA RM L54F22)

THE EFFECT OF GROUND ON THE LOW-SPEED AERODYNAMIC, CONTROL, AND CONTROL HINGE-MOMENT CHARACTERISTICS OF A DELTA-WING—FUSELAGE MODEL WITH TRAILING-EDGE CONTROLS. William L. Scallion. September 1954. 52p. diagrs., photos., tabs. (NACA RM L54H03)

EFFECT OF A WING LEADING-EDGE FLAP AND CHORD-EXTENSION ON THE HIGH SUBSONIC CONTROL CHARACTERISTICS OF A SPOILER-SLOT-DEFLECTOR CONTROL LOCATED AT TWO SPANWISE POSITIONS. Robert F. Thompson and Robert T. Taylor. November 1954. 73p. diagrs., photo., tabs. (NACA RM L54I09)

TESTS IN THE AMES 40- BY 80-FOOT WIND TUNNEL OF THE AERODYNAMIC CHARACTERISTICS OF AIRPLANE MODELS WITH PLAIN SPOILER AILERONS. Ralph W. Franks. December 1954. 47p. diagrs., photo., tabs. (NACA RM A54H26)

THE APPLICATION OF A SIMPLIFIED LIFTING-SURFACE THEORY TO THE PREDICTION OF THE ROLLING EFFECTIVENESS OF PLAIN SPOILER AILERONS AT SUBSONIC SPEEDS. Ralph W. Franks. December 1954. 29p. diagrs., tab. (NACA RM A54H26a)

THE EFFECTS OF TRAILING-EDGE FLAPS ON THE SUBSONIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Bruce E. Tinling and A. V. Karpen. January 1955. 37p. diagrs., photos., tabs. (NACA RM A54L07)

THE EFFECT OF BLUNT-TRAILING-EDGE ELEVONS ON THE LONGITUDINAL AND LATERAL HANDLING QUALITIES OF THE X-4 SEMITAILLESS AIRPLANE. Edwin J. Saltzman. January 1955. 29p. diagrs., photos., tab. (NACA RM H54K03)

THE STATIC LATERAL AND DIRECTIONAL SUBSONIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Howard F. Savage and Bruce E. Tinling. April 1955. 82p. diagrs., photo., tabs. (NACA RM A55B11)

THE EFFECTS OF FLEXIBILITY ON THE LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE OF A LARGE AIRPLANE. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. May 1955. 16p. diagrs. (NACA RM A55D14)

LOW-SPEED LONGITUDINAL STABILITY AND LATERAL-CONTROL CHARACTERISTICS OF A MODEL OF A 40° SWEPT-WING FIGHTER-TYPE AIRPLANE AT A REYNOLDS NUMBER OF 9×10^{6}. Thomas V. Bollech and H. Neale Kelly. February 1956. 149p. diagrs., photo., tabs. (NACA RM L54B17)

COMPARISON OF FLIGHT AND WIND-TUNNEL MEASUREMENTS OF HIGH-SPEED-AIRPLANE STABILITY AND CONTROL CHARACTERISTICS. Walter C. Williams, Hubert M. Drake, and Jack Fischel. (The information in this report was also contained in a paper by the same authors which was presented to Wind Tunnel and Model Testing Panel of Advisory Group for Aeronautical Research and Development, Brussels, Belgium, August 27-31, 1956). August 1956. 16p. diagrs. (NACA TN 3859)

TRANSITION-FLIGHT TESTS OF A MODEL OF A LOW-WING TRANSPORT VERTICAL-TAKE-OFF AIRPLANE WITH TILTING WING AND PROPELLERS. Powell M. Lovell, Jr., and Lysle P. Parlett. September 1956. 30p. diagrs., photo., tab. (NACA TN 3745)

FLIGHT INVESTIGATION OF THE STABILITY AND CONTROL CHARACTERISTICS OF A VERTICALLY RISING AIRPLANE RESEARCH MODEL WITH SWEPT OR UNSWEPT WINGS AND × - OR + -TAILS. Robert H. Kirby. October 1956. 30p. diagrs., photos. (NACA TN 3812)

THEORETICAL INVESTIGATION OF THE EFFECT OF RUDDER AND STABILIZER DEFLECTIONS ON THE ANGLES OF ATTACK AND SIDESLIP IN RAPID ROLLS. C. H. Woodling. March 1957. 43p. diagrs., tabs. (NACA RM L57A30a)

FLIGHT TESTS OF A MODEL OF A HIGH-WING TRANSPORT VERTICAL-TAKE-OFF AIRPLANE WITH TILTING WING AND PROPELLERS AND WITH JET CONTROLS AT THE REAR OF THE FUSELAGE FOR PITCH AND YAW CONTROL. Powell M. Lovell, Jr., and Lysle P. Parlett. March 1957. 28p. diagrs., photo., tab. (NACA TN 3912)

A THEORY FOR THE LATERAL RESPONSE OF AIRPLANES TO RANDOM ATMOSPHERIC TURBULENCE. John M. Eggleston. May 1957. i, 75p. diagrs., tabs. (NACA TN 3954)

SOME EFFECTS OF VALVE FRICTION AND STICK FRICTION ON CONTROL QUALITY IN A HELICOPTER WITH HYDRAULIC-POWER CONTROL SYSTEMS. B. Porter Brown and John P. Reeder. May 1957. 8p. diagr. (NACA TN 4004)

(1.8.2.3) DIRECTIONAL

WIND-TUNNEL INVESTIGATION OF A RAM-JET CANARD MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.60. M. Leroy Spearman and Ross B. Robinson. August 1952. 63p. diagrs., photo., tabs. (NACA RM L52E15)

CALCULATED LATERAL FREQUENCY RESPONSE AND LATERAL OSCILLATORY CHARACTERISTICS FOR SEVERAL HIGH-SPEED AIRPLANES IN VARIOUS FLIGHT CONDITIONS. Byron M. Jaquet. December 1953. 72p. diagrs., tabs. (NACA RM L53J01)

SUBSONIC FLIGHT INVESTIGATION OF METHODS TO IMPROVE THE DAMPING OF LATERAL OSCILLATIONS BY MEANS OF A VISCOUS DAMPER IN THE RUDDER SYSTEM IN CONJUNCTION WITH ADJUSTED HINGE-MOMENT PARAMETERS. Harold L. Crane, George J. Hurt, Jr., and John M. Elliott. June 1954. 46p. diagrs., photos., tab. (NACA RM L54D09)

THE STATIC LATERAL AND DIRECTIONAL SUBSONIC AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Howard F. Savage and Bruce E. Tinling. April 1955. 82p. diagrs., photo., tabs. (NACA RM A55B11)

TRANSITION-FLIGHT TESTS OF A MODEL OF A LOW-WING TRANSPORT VERTICAL-TAKE-OFF AIRPLANE WITH TILTING WING AND PROPELLERS. Powell M. Lovell, Jr., and Lysle P. Parlett. September 1956. 30p. diagrs., photo., tab. (NACA TN 3745)

THEORETICAL INVESTIGATION OF THE EFFECT OF RUDDER AND STABILIZER DEFLECTIONS ON THE ANGLES OF ATTACK AND SIDESLIP IN RAPID ROLLS. C. H. Woodling. March 1957. 43p. diagrs., tabs. (NACA RM L57A30a)

FLIGHT TESTS OF A MODEL OF A HIGH-WING TRANSPORT VERTICAL-TAKE-OFF AIRPLANE WITH TILTING WING AND PROPELLERS AND WITH JET CONTROLS AT THE REAR OF THE FUSELAGE FOR PITCH AND YAW CONTROL. Powell M. Lovell, Jr., and Lysle P. Parlett. March 1957. 28p. diagrs., photo., tab. (NACA TN 3912)

(1.8.2.4) AIR BRAKES

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING TANKS AND SPEED BRAKES ON THE STATIC STABILITY OF A MODEL HAVING A 40° SWEPT WING. William C. Sleeman, Jr., and William J. Alford, Jr. May 1955. 62p. diagrs., photo., tabs. (NACA RM L55C17)

PERFORMANCE CHARACTERISTICS OF RING-CASCADE-TYPE THRUST REVERSERS. Jack G. McArdle. November 1956. 53p. diagrs., photos., tab. (NACA TN 3838)

INVESTIGATION AT TRANSONIC SPEEDS OF DEFLECTORS AND SPOILERS AS GUST ALLEVIATORS ON A 35° SWEPT WING. TRANSONIC-BUMP METHOD. Delwin R. Croom and Jarrett K. Huffman. June 1957. 19p. diagrs. (NACA TN 4006)

(1.8.2.5) HINGE MOMENTS

CONTROL EFFECTIVENESS AND HINGE-MOMENT CHARACTERISTICS OF A TIP CONTROL SURFACE ON A LOW-ASPECT-RATIO POINTED WING AT A MACH NUMBER OF 1.9. D. William Conner and Ellery B. May, Jr. October 5, 1949. 28p. diagrs., photo. (NACA RM L9H26)

CONTROL EFFECTIVENESS LOAD AND HINGE-MOMENT CHARACTERISTICS OF A TIP CONTROL SURFACE ON A DELTA WING AT A MACH NUMBER OF 1.9. D. William Conner and Ellery B. May, Jr. October 7, 1949. 41p. diagrs., photo. (NACA RM L9H05)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTIVENESS OF AN ELEVON AS A LONGITUDINAL CONTROL AND THE EFFECTS OF CAMBER AND TWIST ON THE MAXIMUM LIFT-DRAG RATIO AT SUPERSONIC SPEEDS. Robert N. Olson and Merrill H. Mead. May 8, 1950. 53p. diagrs., photos. (NACA RM A50A31a)

FLIGHT INVESTIGATION AT SUBSONIC, TRANSONIC, AND SUPERSONIC VELOCITIES OF THE HINGE-MOMENT CHARACTERISTICS, LATERAL CONTROL EFFECTIVENESS, AND WING DAMPING IN ROLL OF A 60° SWEPTBACK DELTA WING WITH HALF-DELTA TIP AILERONS. (Revised.) C. William Martz and James D. Church. September 1951. 32p. diagrs., photos. (NACA RM L51G18)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECTIVENESS OF AN INBOARD ELEVON AS A LONGITUDINAL- AND LATERAL-CONTROL DEVICE AT SUBSONIC AND SUPERSONIC SPEEDS. Frank A. Pfyl. December 1951. 38p. diagrs., photo., tabs. (NACA RM A51I18)

FREE-FLIGHT INVESTIGATION TO DETERMINE FORCE AND HINGE-MOMENT CHARACTERISTICS AT ZERO ANGLE OF ATTACK OF A 60° SWEPTBACK HALF-DELTA TIP CONTROL ON A 60° SWEPTBACK DELTA WING AT MACH NUMBERS BETWEEN 0.68 AND 1.44. C. William Martz, James D. Church, and John W. Goslee. December 1951. 36p. diagrs., photos. (NACA RM L51I14)

RECENT DATA ON CONTROLS. David G. Stone. January 1952. 18p. diagrs. (NACA RM L52A10)

FLIGHT INVESTIGATION FROM MACH NUMBER 0.8 TO MACH NUMBER 2.0 TO DETERMINE SOME EFFECTS OF WING-TO-TAIL DISTANCE ON THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° DELTA-WING-CANARD MISSILE. Clarence A. Brown, Jr., and Reginald R. Lundstrom. June 1952. 42p. diagrs., photos. (NACA RM L52C26)

INVESTIGATION OF VANES IMMERSED IN THE JET OF A SOLID-FUEL ROCKET MOTOR. Leo V. Giladett and Andrew R. Wineman. September 1952. 30p. diagrs., photos., tab. (NACA RM L52F12)

ROCKET-MODEL INVESTIGATION TO DETERMINE THE FORCE AND HINGE-MOMENT CHARACTERISTICS OF A HALF-DELTA TIP CONTROL ON A 59° SWEPTBACK DELTA WING BETWEEN MACH NUMBERS OF 0.55 AND 1.43. C. William Martz, James D. Church, and John W. Goslee. October 1952. 53p. diagrs., photos., tab. (NACA RM L52H06)

CONTROL HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF A 60° HALF-DELTA TIP CONTROL ON A 60° DELTA WING AT MACH NUMBERS OF 1.41 AND 1.96. Lawrence D. Guy. October 1952. 40p. diagrs., photo., tab. (NACA RM L52H13)

CONTROL HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF A HORN-BALANCED, FLAP-TYPE CONTROL ON A 55° SWEPTBACK TRIANGULAR WING OF ASPECT RATIO 3.5 AT MACH NUMBERS OF 1.41, 1.62, AND 1.96. Lawrence D. Guy. January 1953. 29p. diagrs., photo., tab. (NACA RM L52L15)

SUBSONIC STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A WING-BODY COMBINATION HAVING A POINTED WING OF ASPECT RATIO 2 WITH CONSTANT-PERCENT-CHORD TRAILING-EDGE ELEVONS. Donald W. Smith and Verlin D. Reed. May 1953. 143p. diagrs., photos., tab. (NACA RM A53C20)

LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS IN SIDESLIP OF A DELTA-WING-FUSELAGE MODEL WITH HORN-BALANCE-TYPE AILERONS AND WITH AND WITHOUT NACELLES. William I. Scallion. August 1953. 31p. diagrs., photo., tabs. (NACA RM L53G09b)

WIND-TUNNEL INVESTIGATION OF A 45° SWEPTBACK WING HAVING A SYMMETRICAL ROOT AND A HIGHLY CAMBERED TIP, INCLUDING THE EFFECTS OF FENCES AND LATERAL CONTROLS. Joseph W. Cleary and Lee E. Boddy. November 1953. 52p. diagrs., photo. (NACA RM A53I21)

AERODYNAMIC CHARACTERISTICS OF A CANARD-BALANCED, FREE-FLOATING, ALL-MOVABLE STABILIZER AS OBTAINED FROM ROCKET-POWERED-MODEL FLIGHT TESTS AND LOW-SPEED WIND-TUNNEL TESTS. William N. Gardner. December 1953. 65p. diagrs., photos., tabs. (NACA RM L53I28a)

INVESTIGATION AT TRANSONIC SPEEDS OF THE LATERAL-CONTROL AND HINGE-MOMENT CHARACTERISTICS OF A FLAP-TYPE SPOILER AILERON ON A 60° DELTA WING. Harleth G. Wiley and Robert T. Taylor. January 1954. 22p. diagrs. (NACA RM L53J05)

A LOW-SPEED INVESTIGATION OF THE AERODYNAMIC, CONTROL, AND HINGE-MOMENT CHARACTERISTICS OF TWO TYPES OF CONTROLS AND BALANCING TABS ON A LARGE-SCALE THIN DELTA-WING—FUSELAGE MODEL. Marvin P. Fink and Bennie W. Cocke. March 1954. 69p. diagrs., photo., tabs. (NACA RM L54B03)

EFFECT ON THE LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A 49° SWEPTBACK WING HAVING AN ASPECT RATIO OF 3.78 OF BLOWING AIR OVER THE TRAILING-EDGE FLAP AND AILERON. Edward F. Whittle, Jr., and Stanley Lipson. April 1954. 51p. diagrs., photo., tab. (NACA RM L54C05)

ROCKET-POWERED-MODEL INVESTIGATION OF THE HINGE-MOMENT AND NORMAL-FORCE CHARACTERISTICS OF A HALF-DIAMOND TIP CONTROL ON A 60° SWEPTBACK DIAMOND WING BETWEEN MACH NUMBERS OF 0.5 AND 1.3. James D. Church. April 1954. 30p. diagrs., photos., tab. (NACA RM L54C10)

SUBSONIC FLIGHT INVESTIGATION OF METHODS TO IMPROVE THE DAMPING OF LATERAL OSCILLATIONS BY MEANS OF A VISCOUS DAMPER IN THE RUDDER SYSTEM IN CONJUNCTION WITH ADJUSTED HINGE-MOMENT PARAMETERS. Harold L. Crane, George J. Hurt, Jr., and John M. Elliott. June 1954. 46p. diagrs., photos., tab. (NACA RM L54D09)

INVESTIGATION OF THE EFFECT OF BALANCING TABS ON THE HINGE-MOMENT CHARACTERISTICS OF A TRAILING-EDGE FLAP-TYPE CONTROL ON A TRAPEZOIDAL WING AT A MACH NUMBER OF 1.61. Douglas R. Lord and Cornelius Driver. August 1954. 23p. diagrs., photo. (NACA RM L54F22)

THE EFFECT OF GROUND ON THE LOW-SPEED AERODYNAMIC, CONTROL, AND CONTROL HINGE-MOMENT CHARACTERISTICS OF A DELTA-WING—FUSELAGE MODEL WITH TRAILING-EDGE CONTROLS. William I. Scallion. September 1954. 52p. diagrs., photos., tabs. (NACA RM L54H03)

WIND-TUNNEL INVESTIGATION AT TRANSONIC SPEEDS OF THE LIFT AND HINGE-MOMENT CHARACTERISTICS OF A FLAP WITH ATTACHED BALANCING TAB ON A 45° SWEPTBACK WING. Raymond D. Vogler. December 1954. 63p. diagrs. (NACA RM L54J28a)

FLIGHT MEASUREMENTS OF ELEVON HINGE MOMENTS ON THE XF-92A DELTA-WING AIRPLANE. Clinton T. Johnson and Albert E. Kuhl. January 1955. 26p. diagrs., photos., tab. (NACA RM H54J25a)

GROUND EFFECTS ON THE LONGITUDINAL CHARACTERISTICS OF TWO MODELS WITH WINGS HAVING LOW ASPECT RATIO AND POINTED TIPS. Donald A. Buell and Bruce E. Tinling. July 1955. 48p. diagrs., photos., tabs. (NACA RM A55E04)

AERODYNAMIC CHARACTERISTICS AND FLYING QUALITIES OF A TAILLESS TRIANGULAR-WING AIRPLANE CONFIGURATION AS OBTAINED FROM FLIGHTS OF ROCKET-PROPELLED MODELS AT TRANSONIC AND LOW SUPERSONIC SPEEDS. Grady L. Mitcham, Joseph E. Stevens, and Harry P. Norris. November 1956. 57p. diagrs., photos., tabs. (NACA TN 3753. Supersedes RM L9L07)

PRELIMINARY DATA AT A MACH NUMBER OF 2.40 OF THE CHARACTERISTICS OF FLAP-TYPE CONTROLS EQUIPPED WITH PLAIN OVERHANG BALANCES. James N. Mueller and K. R. Czarnecki. March 1957. 43p. diagrs., photos. (NACA TN 3948. Supersedes RM L52F10)

(1.8.2.6) AUTOMATIC

THEORETICAL INVESTIGATION OF THE STABILITY AT NEGATIVE STATIC MARGINS OF A SUPERSONIC MISSILE WITH AN AUTOPILOT SENSITIVE TO PITCH ANGLE AND PITCHING VELOCITY. Henry A. Cole, Jr., and Marvin Abramovitz. March 1952. 28p. diagrs., tab. (NACA RM A52A14)

FLIGHT INVESTIGATION OF A SUPERSONIC CANARD MISSILE EQUIPPED WITH AN AUXILIARY DAMPING-IN-PITCH CONTROL SYSTEM. Martin T. Moul. February 1953. 31p. diagrs., photos., tabs. (NACA RM L52K14b)

THE INFLUENCE OF THE CONTROL-SURFACE-SERVO NATURAL FREQUENCY UPON THE TRANSIENT CHARACTERISTICS OF A FLIGHT-PATH-ANGLE CONTROL SYSTEM INCORPORATING A SUPERSONIC MISSILE. Anthony L. Passera and Thomas F. Bridgland, Jr. December 1953. 22p. diagrs., photo., tabs. (NACA RM L53J15)

STUDY OF THE ATTACK OF AN AUTOMATICALLY CONTROLLED INTERCEPTOR ON A MANEUVERING BOMBER WITH EMPHASIS ON PROPER COORDINATION OF LIFT-ACCELERATION AND ROLL-ANGLE COMMANDS DURING ROLLING MANEUVERS. Charles W. Mathews. August 1954. 52p. diagrs., photo., tabs. (NACA RM L54E27)

THEORETICAL INVESTIGATION BASED ON EXPERIMENTAL FREQUENCY-RESPONSE MEASUREMENTS OF AN AUTOMATIC ALTITUDE CONTROL IN COMBINATION WITH A SUPERSONIC MISSILE CONFIGURATION. Ernest C. Seaberg, Edward S. Geller, and William W. Willoughby. August 1954. 28p. diagrs., photos. (NACA RM L54F04)

GROUND TESTS OF THE ELEVATOR POWER CONTROL SYSTEM AND FEEL DEVICE IN A BOEING B-47A AIRPLANE. B. Porter Brown. October 1954. 34p. diagrs. (NACA RM L54G09)

FLIGHT TESTS OF A DELTA-WING VERTICALLY RISING AIRPLANE MODEL POWERED BY A DUCTED FAN. Powell M. Lovell, Jr. April 1955. 23p. diagrs., photos., tab. (NACA RM L55B17)

THE EFFECTS OF FLEXIBILITY ON THE LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE OF A LARGE AIRPLANE. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. May 1955. 16p. diagrs. (NACA RM A55D14)

AN OPTIMUM SWITCHING CRITERION FOR A THIRD-ORDER CONTACTOR ACCELERATION CONTROL SYSTEM. Anthony L. Passera and Ross G. Willoh, Jr. August 1956. 46p. diagrs., tab. (NACA TN 3743)

EXPERIMENTAL AND PREDICTED LATERAL-DIRECTIONAL DYNAMIC-RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Stuart C. Brown and Euclid C. Holleman. December 1956. 74p. diagrs., photo., tabs. (NACA TN 3874)

ON THE USE OF THE HARMONIC LINEARIZATION METHOD IN THE AUTOMATIC CONTROL THEORY. (K voprosu o primenenii metoda harmonicheskoi linearizatsii v teorii regulirovaniya). E. P. Popov. January 1957. 6p. (NACA TM 1406. Translation from Doklady Akademiia Nauk (SSSR), v.106, no.2, 1956, p.211-214)

EFFECTS OF WING POSITION AND VERTICAL-TAIL CONFIGURATION ON STABILITY AND CONTROL CHARACTERISTICS OF A JET-POWERED DELTA-WING VERTICALLY RISING AIRPLANE MODEL. Powell M. Lovell, Jr., and Lysle P. Parlett. January 1957. 35p. diagrs., photos., tab. (NACA TN 3899)

FLIGHT INVESTIGATION OF A ROLL-STABILIZED MISSILE CONFIGURATION AT VARYING ANGLES OF ATTACK AT MACH NUMBERS BETWEEN 0.8 AND 1.79. Jacob Zarovsky and Robert A. Gardiner. January 1957. 36p. diagrs., photos., tab. (NACA TN 3915. Supersedes RM L50H21)

INSTRUMENT FLIGHT TRIALS WITH A HELICOPTER STABILIZED IN ATTITUDE ABOUT EACH AXIS INDIVIDUALLY. Seymour Salmirs and Robert J. Tapscott. January 1957. 17p. diagrs., photo. (NACA TN 3947)

THEORETICAL INVESTIGATION OF THE EFFECT OF RUDDER AND STABILIZER DEFLECTIONS ON THE ANGLES OF ATTACK AND SIDESLIP IN RAPID ROLLS. C. H. Woodling. March 1957. 43p. diagrs., tabs. (NACA RM L57A30a)

THE APPLICATION OF MATRIX METHODS TO COORDINATE TRANSFORMATIONS OCCURRING IN SYSTEMS STUDIES INVOLVING LARGE MOTIONS OF AIRCRAFT. Brian F. Doolin. May 1957. 36p. (NACA TN 3968)

LOADS IMPLICATIONS OF GUST-ALLEVIATION SYSTEMS. William H. Phillips. June 1957. 11p. diagrs., tab. (NACA TN 4056)

(1.8.3) SPINNING

AN INVESTIGATION OF THE SPIN AND RECOVERY CHARACTERISTICS OF A 1/25-SCALE MODEL OF THE DOUGLAS D-558-II AIRPLANE. Stanley H. Scher and Lawrence J. Gale. January 18, 1949. 29p. diagrs., photos., tabs. (NACA RM L8K19a)

(1.8.4) STALLING

RESULTS OBTAINED DURING ACCELERATED TRANSONIC TESTS OF THE BELL XS-1 AIRPLANE IN FLIGHTS TO A MACH NUMBER OF 0.92. Hubert M. Drake, Milton D. McLaughlin, and Harold R. Goodman. April 19, 1948. 22p. diagrs., tab. (NACA RM L8A05a)

PRELIMINARY FLIGHT MEASUREMENTS OF THE STATIC LONGITUDINAL STABILITY AND STALLING CHARACTERISTICS OF THE DOUGLAS D-558-II RESEARCH AIRPLANE (BUAERO. NO. 37974). S. A. Sjoberg and R. A. Champine. October 18, 1949. 16p. diagrs., photos., tab. (NACA RM L9H31a)

PRELIMINARY RESULTS FROM A FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION WITH A THIN STRAIGHT WING OF ASPECT RATIO 3. Clarence L. Gillis, Robert F. Peck, and A. James Vitale. February 14, 1950. 53p. diagrs., photos., tabs. (NACA RM L9K25a)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. MEASUREMENTS OF THE BUFFET BOUNDARY AND PEAK AIRPLANE NORMAL-FORCE COEFFICIENTS AT MACH NUMBERS UP TO 0.90. John P. Mayer and George M. Valentine. August 28, 1950. 31p. diagrs., photos., tab. (NACA RM L50E31)

FLIGHT MEASUREMENTS WITH THE DOUGLAS D-558-II (BUAERO NO. 37974) RESEARCH AIRPLANE. LOW-SPEED STALLING AND LIFT CHARACTERISTICS. W. H. Stillwell, J. V. Wilmerding, and R. A. Champine. September 5, 1950. 45p. diagrs., photos., tab. (NACA RM L50G10)

BUFFETING INFORMATION OBTAINED FROM ROCKET-PROPELLED AIRPLANE MODELS HAVING THIN UNSWEPT WINGS. Clarence L. Gillis. October 18, 1950. 15p. diagrs., photos. (NACA RM L50H22a)

THE USE OF AREA SUCTION FOR THE PURPOSE OF DELAYING SEPARATION OF AIR FLOW AT THE LEADING EDGE OF A 63° SWEPT-BACK WING. Woodrow L. Cook, Roy N. Griffin, Jr., and Gerald M. McCormack. November 22, 1950. 68p. diagrs., photo., tab. (NACA RM A50H09)

THE EFFECTS OF BOUNDARY-LAYER CONTROL ON THE LONGITUDINAL CHARACTERISTICS OF A SWEPT-BACK WING USING SUCTION THROUGH STREAMWISE SLOTS IN THE OUTBOARD PORTION OF THE WING. Gerald M. McCormack and William H. Tolhurst, Jr. January 5, 1951. 34p. diagrs., photo., tabs. (NACA RM A50K06)

THE USE OF AREA SUCTION FOR THE PURPOSE OF DELAYING SEPARATION OF AIR FLOW AT THE LEADING EDGE OF A 63° SWEPT-BACK WING - EFFECTS OF CONTROLLING THE CHORDWISE DISTRIBUTION OF SUCTION-AIR VELOCITIES. Woodrow L. Cook and Mark W. Kelly. January 1952. 51p. diagrs., photo., tab. (NACA RM A51J24)

A SUMMARY AND ANALYSIS OF THE LOW-SPEED LONGITUDINAL CHARACTERISTICS OF SWEPT WINGS AT HIGH REYNOLDS NUMBER. G. Chester Furlong and James G. McHugh. August 1952. ii, 227p. diagrs., tabs. (NACA RM L52D16)

AERODYNAMIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION AND THE FUSELAGE ALONE OBTAINED IN THE LANGLEY 8-FOOT TRANSONIC TUNNEL. Robert S. Osborne and John P. Mugler, Jr. September 1952. 71p. diagrs., photos., tabs. (NACA RM L52E14)

THE USE OF AREA SUCTION FOR THE PURPOSE OF IMPROVING TRAILING-EDGE FLAP EFFECTIVENESS ON A 35° SWEPTBACK WING. Woodrow L. Cook, Curt A. Holzhauser, and Mark W. Kelly. July 1953. 77p. diagrs., photos., tabs. (NACA RM A53E06)

RESULTS OF MEASUREMENTS OF MAXIMUM LIFT AND BUFFETING INTENSITIES OBTAINED DURING FLIGHT INVESTIGATION OF THE NORTHROP X-4 RESEARCH AIRPLANE. Thomas F. Baker. August 1953. 22p. diagrs., photos., tab. (NACA RM L53G06)

THE USE OF A LEADING-EDGE AREA-SUCTION FLAP TO DELAY SEPARATION OF AIR FLOW FROM THE LEADING EDGE OF A 35° SWEPTBACK WING. Curt A. Holzhauser and Robert K. Martin. December 1953. 42p. diagrs., photos., tabs. (NACA RM A53J26)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF LEADING-EDGE POROUS SUCTION ON A 4-PERCENT-THICK 60° DELTA WING. E. Carson Yates, Jr. March 1955. 73p. diagrs., photo., tabs. (NACA RM L54L21)

A CORRELATION OF AIRFOIL SECTION DATA WITH THE AERODYNAMIC LOADS MEASURED ON A 45° SWEPTBACK WING MODEL AT SUBSONIC MACH NUMBERS. Harold J. Walker and William C. Maillard. May 1955. 78p. diagrs., photo., tabs. (NACA RM A55C08)

A STUDY OF THE APPLICATION OF AIRFOIL SECTION DATA TO THE ESTIMATION OF THE HIGH SUBSONIC SPEED CHARACTERISTICS OF SWEPT WINGS. Lynn W. Hunton. June 1955. 37p. diagrs., tab. (NACA RM A55C23)

FULL-SCALE WIND TUNNEL TESTS OF A 35° SWEPTBACK WING AIRPLANE WITH HIGH-VELOCITY BLOWING OVER THE TRAILING-EDGE FLAPS. Mark W. Kelly and William H. Tolhurst, Jr. November 1955. 49p. diagrs., photos., tab. (NACA RM A55I09)

WIND-TUNNEL AND FLIGHT INVESTIGATIONS OF THE USE OF LEADING-EDGE AREA SUCTION FOR THE PURPOSE OF INCREASING THE MAXIMUM LIFT COEFFICIENT OF A 35° SWEPT-WING AIRPLANE. Curt A. Holzhauser and Richard S. Bray. 1956. ii, 24p. diagrs., photos., tabs. (NACA Rept. 1276. Supersedes RM A52G17; RM A55C07)

EFFECT OF AREA-SUCTION-TYPE BOUNDARY-LAYER CONTROL ON THE LANDING-APPROACH CHARACTERISTICS OF A 35° SWEPT-WING FIGHTER. George E. Cooper and Robert C. Innis. February 1956. 35p. diagrs., photos., tabs. (NACA RM A55K14)

FLIGHT MEASUREMENTS OF THE LOW-SPEED CHARACTERISTICS OF A 35° SWEPT-WING AIRPLANE WITH AREA-SUCTION BOUNDARY-LAYER CONTROL ON THE FLAPS. Seth B. Anderson and Hervey C. Quigley. February 1956. 35p. diagrs., photos., tab. (NACA RM A55K29)

FLIGHT MEASUREMENTS OF THE LOW-SPEED CHARACTERISTICS OF A 35° SWEPT-WING AIRPLANE WITH BLOWING-TYPE BOUNDARY-LAYER CONTROL ON THE TRAILING-EDGE FLAPS. Seth B. Anderson, Hervey C. Quigley, and Robert C. Innis. October 1956. 52p. diagrs., photos., tabs. (NACA RM A56G30)

A CORRELATION OF LOW-SPEED, AIRFOIL-SECTION STALLING CHARACTERISTICS WITH REYNOLDS NUMBER AND AIRFOIL GEOMETRY. Donald E. Gault. March 1957. 9p. diagrs., tab. (NACA TN 3963)

AN EXPERIMENTAL HYDRODYNAMIC INVESTIGATION OF THE INCEPTION OF VORTEX VENTILATION. John A. Ramsen. April 1957. 31p. diagrs., photos. (NACA TN 3903)

(1.8.5)
FLYING QUALITIES

RESULTS OBTAINED DURING ACCELERATED TRANSONIC TESTS OF THE BELL XS-1 AIRPLANE IN FLIGHTS TO A MACH NUMBER OF 0.92. Hubert M. Drake, Milton D. McLaughlin, and Harold R. Goodman. April 19, 1948. 22p. diagrs., tab. (NACA RM L8A05a)

PRELIMINARY RESULTS FROM A FREE-FLIGHT INVESTIGATION AT TRANSONIC AND SUPERSONIC SPEEDS OF THE LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF AN AIRPLANE CONFIGURATION WITH A THIN STRAIGHT WING OF ASPECT RATIO 3. Clarence L. Gillis, Robert F. Peck, and A. James Vitale. February 14, 1950. 53p. diagrs., photos., tabs. (NACA RM L9K25a)

BUFFETING INFORMATION OBTAINED FROM ROCKET-PROPELLED AIRPLANE MODELS HAVING THIN UNSWEPT WINGS. Clarence L. Gillis. October 18, 1950. 15p. diagrs., photos. (NACA RM L50H22a)

FREE-FLIGHT-TUNNEL INVESTIGATION OF THE DYNAMIC LATERAL STABILITY AND CONTROL CHARACTERISTICS OF A TIP-TO-TIP BOMBER-FIGHTER COUPLED AIRPLANE CONFIGURATION. Charles V. Bennett and Robert B. Cadman. April 4, 1951. 16p. diagrs., tab. (NACA RM L51A12)

LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS AT MACH NUMBERS FROM 0.70 TO 1.37 OF ROCKET-PROPELLED MODELS HAVING A MODIFIED TRIANGULAR WING. Rowe Chapman, Jr., and John D. Morrow. May 1952. 35p. diagrs., photos., tab. (NACA RM L52A31)

WIND-TUNNEL INVESTIGATION OF A RAM-JET CANARD MISSILE MODEL HAVING A WING AND CANARD SURFACES OF DELTA PLAN FORM WITH 70° SWEPT LEADING EDGES. LONGITUDINAL AND LATERAL STABILITY AND CONTROL CHARACTERISTICS AT A MACH NUMBER OF 1.60. M. Leroy Spearman and Ross B. Robinson. August 1952. 63p. diagrs., photo., tabs. (NACA RM L52E15)

PRELIMINARY MEASUREMENTS OF STATIC LONGITUDINAL STABILITY AND TRIM FOR THE XF-92A DELTA-WING RESEARCH AIRPLANE IN SUBSONIC AND TRANSONIC FLIGHT. Thomas R. Sisk and John M. Mooney. March 1953. 19p. diagrs., photo., tab. (NACA RM L53B06)

INVESTIGATION OF THE USE OF A STICK FORCE PROPORTIONAL TO PITCHING ACCELERATION FOR NORMAL-ACCELERATION WARNING. Marvin Abramovitz, Stanley F. Schmidt, and Rudolph D. Van Dyke, Jr. August 1953. 23p. diagrs., tab. (NACA RM A53E21)

A FLIGHT INVESTIGATION OF THE EFFECTS OF VARIED LATERAL DAMPING ON THE EFFECTIVENESS OF A FIGHTER AIRPLANE AS A GUN PLATFORM. Helmut A. Kuehnel, Arnold R. Beckhardt, and Robert A. Champine. August 1953. 30p. diagrs., photo., tabs. (NACA RM L53F08a)

RESULTS OF MEASUREMENTS OF MAXIMUM LIFT AND BUFFETING INTENSITIES OBTAINED DURING FLIGHT INVESTIGATION OF THE NORTHROP X-4 RESEARCH AIRPLANE. Thomas F. Baker. August 1953. 22p. diagrs., photos., tab. (NACA RM L53G06)

CALCULATED LATERAL FREQUENCY RESPONSE AND LATERAL OSCILLATORY CHARACTERISTICS FOR SEVERAL HIGH-SPEED AIRPLANES IN VARIOUS FLIGHT CONDITIONS. Byron M. Jaquet. December 1953. 72p. diagrs., tabs. (NACA RM L53J01)

SUBSONIC FLIGHT INVESTIGATION OF METHODS TO IMPROVE THE DAMPING OF LATERAL OSCILLATIONS BY MEANS OF A VISCOUS DAMPER IN THE RUDDER SYSTEM IN CONJUNCTION WITH ADJUSTED HINGE-MOMENT PARAMETERS. Harold L. Crane, George J. Hurt, Jr., and John M. Elliott. June 1954. 46p. diagrs., photos., tab. (NACA RM L54D09)

A FLIGHT INVESTIGATION OF THE EFFECTS OF INCLINATION OF THE PRINCIPAL AXIS OF INERTIA ON THE DYNAMIC LATERAL STABILITY OF THE REPUBLIC XF-91 AIRPLANE. Thomas W. Finch. July 1954. 19p. diagrs., photos., tab. (NACA RM L53I28)

A FLIGHT EVALUATION OF THE STABILITY AND CONTROL OF THE X-4 SWEPT-WING SEMITAILLESS AIRPLANE. Melvin Sadoff and A. Scott Crossfield. August 1954. 48p. diagrs., photos., tab. (NACA RM H54G16)

FLIGHT INVESTIGATION OF THE EFFECTS OF HORIZONTAL-TAIL HEIGHT, MOMENT OF INERTIA, AND CONTROL EFFECTIVENESS ON THE PITCH-UP CHARACTERISTICS OF A 35° SWEPT-WING FIGHTER AIRPLANE AT HIGH SUBSONIC SPEEDS. Norman M. McFadden and Donovan R. Heinle. January 1955. 24p. diagrs., photos., tab. (NACA RM A54F21)

THE EFFECT OF BLUNT-TRAILING-EDGE ELEVONS ON THE LONGITUDINAL AND LATERAL HANDLING QUALITIES OF THE X-4 SEMITAILLESS AIRPLANE. Edwin J. Saltzman. January 1955. 29p. diagrs., photos., tab. (NACA RM H54K03)

FLIGHT MEASUREMENTS AT TRANSONIC SPEEDS OF THE BUFFETING CHARACTERISTICS OF THE XF-92A DELTA-WING RESEARCH AIRPLANE. Thomas F. Baker and Wallace E. Johnson. April 1955. 32p. diagrs., photos., tab. (NACA RM H54L03)

ANALOG STUDY OF THE EFFECTS OF VARIOUS TYPES OF CONTROL FEEL ON THE DYNAMIC CHARACTERISTICS OF A PILOT-AIRPLANE COMBINATION. Charles W. Mathews. August 1955. 13p. diagrs. (NACA RM L55F01a)

STUDIES OF THE SPEED STABILITY OF A TANDEM HELICOPTER IN FORWARD FLIGHT. Robert J. Tapscott and Kenneth B. Amer. 1956. ii, 12p. diagrs., photos., tab. (NACA Rept. 1260. Supersedes RM L53F15a)

FLIGHT MEASUREMENTS OF THE LOW-SPEED CHARACTERISTICS OF A 35° SWEPT-WING AIRPLANE WITH AREA-SUCTION BOUNDARY-LAYER CONTROL ON THE FLAPS. Seth B. Anderson and Hervey C. Quigley. February 1956. 35p. diagrs., photos., tab. (NACA RM A55K29)

TRANSITION-FLIGHT TESTS OF A MODEL OF A LOW-WING TRANSPORT VERTICAL-TAKE-OFF AIRPLANE WITH TILTING WING AND PROPELLERS. Powell M. Lovell, Jr., and Lysle P. Parlett. September 1956. 30p. diagrs., photo., tab. (NACA TN 3745)

FLIGHT MEASUREMENTS OF THE LOW-SPEED CHARACTERISTICS OF A 35° SWEPT-WING AIRPLANE WITH BLOWING-TYPE BOUNDARY-LAYER CONTROL ON THE TRAILING-EDGE FLAPS. Seth B. Anderson, Hervey C. Quigley, and Robert C. Innis. October 1956. 52p. diagrs., photos., tabs. (NACA RM A56G30)

INSTRUMENT FLIGHT TRIALS WITH A HELICOPTER STABILIZED IN ATTITUDE ABOUT EACH AXIS INDIVIDUALLY. Seymour Salmirs and Robert J. Tapscott. January 1957. 17p. diagrs., photo. (NACA TN 3947)

METHODS FOR OBTAINING DESIRED HELICOPTER STABILITY CHARACTERISTICS AND PROCEDURES FOR STABILITY PREDICTIONS. F. B. Gustafson and Robert J. Tapscott. February 1957. 28p. diagrs., tabs. (NACA TN 3945. Supersedes RM L54F30; RM L54G05)

FLIGHT TESTS OF A MODEL OF A HIGH-WING TRANSPORT VERTICAL-TAKE-OFF AIRPLANE WITH TILTING WING AND PROPELLERS AND WITH JET CONTROLS AT THE REAR OF THE FUSELAGE FOR PITCH AND YAW CONTROL. Powell M. Lovell, Jr., and Lysle P. Parlett. March 1957. 28p. diagrs., photo., tab. (NACA TN 3912)

(1.8.6)
MASS AND GYROSCOPIC PROBLEMS

AN INVESTIGATION OF THE SPIN AND RECOVERY CHARACTERISTICS OF A 1/25-SCALE MODEL OF THE DOUGLAS D-558-II AIRPLANE. Stanley H. Scher and Lawrence J. Gale. January 18, 1949. 29p. diagrs., photos., tabs. (NACA RM L8K19a)

AN ANALYTICAL STUDY OF SIDESLIP ANGLES AND VERTICAL-TAIL LOADS IN ROLLING PULLOUTS AS AFFECTED BY SOME CHARACTERISTICS OF MODERN HIGH-SPEED AIRPLANE CONFIGURATIONS. Ralph W. Stone, Jr. October 1953. 41p. diagrs., tabs. (NACA RM L53G21)

EXPERIMENTAL EVIDENCE OF SUSTAINED COUPLED LONGITUDINAL AND LATERAL OSCILLATIONS FROM A ROCKET-PROPELLED MODEL OF A 35° SWEPT WING AIRPLANE CONFIGURATION. James H. Parks. May 1954. 28p. diagrs., photos., tab. (NACA RM L54D15)

A FLIGHT INVESTIGATION OF THE EFFECTS OF INCLINATION OF THE PRINCIPAL AXIS OF INERTIA ON THE DYNAMIC LATERAL STABILITY OF THE REPUBLIC XF-91 AIRPLANE. Thomas W. Finch. July 1954. 19p. diagrs., photos., tab. (NACA RM L53I28)

RECENT STABILITY AND AERODYNAMIC PROBLEMS AND THEIR IMPLICATIONS AS TO LOAD ESTIMATION. Charles H. Zimmerman. June 1955. 12p. diagrs. (NACA RM L55E11a)

A THEORETICAL ANALYSIS OF THE EFFECT OF ENGINE ANGULAR MOMENTUM ON LONGITUDINAL AND DIRECTIONAL STABILITY IN STEADY ROLLING MANEUVERS. Ordway B. Gates, Jr., and C. H. Woodling. October 1955. 20p. diagrs., tab. (NACA RM L55G05)

A SIMPLIFIED METHOD FOR APPROXIMATING THE TRANSIENT MOTION IN ANGLES OF ATTACK AND SIDESLIP DURING A CONSTANT ROLLING MANEUVER. Leonard Sternfield. August 1956. 38p. diagrs., tabs. (NACA RM L56F04)

MEASUREMENT OF THE LONGITUDINAL MOMENT OF INERTIA OF A FLEXIBLE AIRPLANE. Henry A. Cole, Jr., and Frances L. Bennion. November 1956. 30p. diagrs., photos., tabs. (NACA TN 3870. Supersedes RM A55J21)

THEORETICAL INVESTIGATION OF THE EFFECT OF RUDDER AND STABILIZER DEFLECTIONS ON THE ANGLES OF ATTACK AND SIDESLIP IN RAPID ROLLS. C. H. Woodling. March 1957. 43p. diagrs., tabs. (NACA RM L57A30a)

(1.8.8)
AUTOMATIC STABILIZATION

THEORETICAL INVESTIGATION OF THE STABILITY AT NEGATIVE STATIC MARGINS OF A SUPERSONIC MISSILE WITH AN AUTOPILOT SENSITIVE TO PITCH ANGLE AND PITCHING VELOCITY. Henry A. Cole, Jr., and Marvin Abramovitz. March 1952. 28p. diagrs., tab. (NACA RM A52A14)

FLIGHT INVESTIGATION OF A SUPERSONIC CANARD MISSILE EQUIPPED WITH AN AUXILIARY DAMPING-IN-PITCH CONTROL SYSTEM. Martin T. Moul. February 1953. 31p. diagrs., photos., tabs. (NACA RM L52K14b)

AN ANALYSIS OF THE LATERAL STABILITY OF THE DOUGLAS D-558-II AIRPLANE EQUIPPED WITH A YAW DAMPER, WITH SPECIAL REFERENCE TO THE EFFECT OF YAW-DAMPER RATE-GYRO SPIN-AXIS ORIENTATION. Ordway B. Gates, Jr., Albert A. Schy, and C. H. Woodling. March 1953. 36p. diagrs., tabs. (NACA RM L52K14a)

A FLIGHT INVESTIGATION OF THE EFFECTS OF VARIED LATERAL DAMPING ON THE EFFECTIVENESS OF A FIGHTER AIRPLANE AS A GUN PLATFORM. Helmut A. Kuehnel, Arnold R. Beckhardt, and Robert A. Champine. August 1953. 30p. diagrs., photo., tabs. (NACA RM L53F08a)

THE INFLUENCE OF THE CONTROL-SURFACE-SERVO NATURAL FREQUENCY UPON THE TRANSIENT CHARACTERISTICS OF A FLIGHT-PATH-ANGLE CONTROL SYSTEM INCORPORATING A SUPERSONIC MISSILE. Anthony L. Passera and Thomas F. Bridgland, Jr. December 1953. 22p. diagrs., photo., tabs. (NACA RM L53J15)

STUDY OF THE ATTACK OF AN AUTOMATICALLY CONTROLLED INTERCEPTOR ON A MANEUVERING BOMBER WITH EMPHASIS ON PROPER COORDINATION OF LIFT-ACCELERATION AND ROLL-ANGLE COMMANDS DURING ROLLING MANEUVERS. Charles W. Mathews. August 1954. 52p. diagrs., photo., tabs. (NACA RM L54E27)

DEVELOPMENT OF A NEW FLUTTER TESTING TECHNIQUE USING A TOWED DYNAMIC AIRPLANE MODEL EQUIPPED WITH AN AUTOMATIC STABILIZING SYSTEM. EXPERIMENTAL AND CALCULATED DYNAMIC STABILITY CHARACTERISTICS FOR SPEEDS UP TO 200 MPH. William C. Schneider. March 1955. 50p. diagrs., photo., tabs. (NACA RM L54L23)

FLIGHT TESTS OF A DELTA-WING VERTICALLY RISING AIRPLANE MODEL POWERED BY A DUCTED FAN. Powell M. Lovell, Jr. April 1955. 23p. diagrs., photos., tab. (NACA RM L55B17)

AN OPTIMUM SWITCHING CRITERION FOR A THIRD-ORDER CONTACTOR ACCELERATION CONTROL SYSTEM. Anthony L. Passera and Ross G. Willoh, Jr. August 1956. 46p. diagrs., tab. (NACA TN 3743)

ON THE USE OF THE HARMONIC LINEARIZATION METHOD IN THE AUTOMATIC CONTROL THEORY. (K voprosu o primenenii metoda harmonicheskoi linearizatsii v teorii regulirovaniya). E. P. Popov. January 1957. 6p. (NACA TM 1406. Translation from Doklady Akademiia Nauk (SSSR), v.106, no.2, 1956, p.211-214)

EFFECTS OF WING POSITION AND VERTICAL-TAIL CONFIGURATION ON STABILITY AND CONTROL CHARACTERISTICS OF A JET-POWERED DELTA-WING VERTICALLY RISING AIRPLANE MODEL. Powell M. Lovell, Jr., and Lysle P. Parlett. January 1957. 35p. diagrs., photos., tab. (NACA TN 3899)

FLIGHT INVESTIGATION OF A ROLL-STABILIZED MISSILE CONFIGURATION AT VARYING ANGLES OF ATTACK AT MACH NUMBERS BETWEEN 0.8 AND 1.79. Jacob Zarovsky and Robert A. Gardiner. January 1957. 36p. diagrs., photos., tab. (NACA TN 3915. Supersedes RM L50H21)

INSTRUMENT FLIGHT TRIALS WITH A HELICOPTER STABILIZED IN ATTITUDE ABOUT EACH AXIS INDIVIDUALLY. Seymour Salmirs and Robert J. Tapscott. January 1957. 17p. diagrs., photo. (NACA TN 3947)

INVESTIGATION OF A NONLINEAR CONTROL SYSTEM. I. Flügge-Lotz and C. F. Taylor, Stanford University. April 1957. 92p. diagrs., tabs. (NACA TN 3826)

(1.8.9) TRACKING

THE APPLICATION OF MATRIX METHODS TO COORDINATE TRANSFORMATIONS OCCURRING IN SYSTEMS STUDIES INVOLVING LARGE MOTIONS OF AIRCRAFT. Brian F. Doolin. May 1957. 36p. (NACA TN 3968)

(1.9)
Aeroelasticity

A SMALL-SCALE INVESTIGATION OF "M" AND "W" WINGS AT TRANSONIC SPEEDS. George S. Campbell and William D. Morrison, Jr. October 2, 1950. 30p. diagrs., photo., tab. (NACA RM L50H25a)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63° - EFFECT OF REYNOLDS NUMBER AT SUPERSONIC MACH NUMBERS ON THE LONGITUDINAL CHARACTERISTICS OF A WING TWISTED AND CAMBERED FOR UNIFORM LOAD. John C. Heitmeyer. October 9, 1950. 36p. diagrs., photo. (NACA RM A50G10)

FREE-FLIGHT MEASUREMENTS OF SOME EFFECTS OF AILERON SPAN, CHORD, AND DEFLECTION AND OF WING FLEXIBILITY ON THE ROLLING EFFECTIVENESS OF AILERONS ON SWEPTBACK WINGS AT MACH NUMBERS BETWEEN 0.8 AND 1.6. Eugene D. Schult, H. Kurt Strass, and E. M. Fields. January 1952. 52p. diagrs., photos., tabs. (NACA RM L51K16)

SOME EFFECTS OF AEROELASTICITY AT MACH NUMBERS FROM 0.7 TO 1.6 ON THE ROLLING EFFECTIVENESS OF THIN FLAT-PLATE DELTA WINGS HAVING 45° SWEPT LEADING EDGES AND FULL-SPAN CONSTANT-CHORD AILERONS. Edward T. Marley and Roland D. English. February 1952. 14p. diagrs., photo. (NACA RM L51L05)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. SWEEP SERIES. Richard E. Kuhn and Paul G. Fournier. September 1952. 30p. diagrs., photos. (NACA RM L52G11a)

SOME EFFECTS OF SPOILER HEIGHT, WING FLEXIBILITY, AND WING THICKNESS ON ROLLING EFFECTIVENESS AND DRAG OF UNSWEPT WINGS AT MACH NUMBERS BETWEEN 0.4 AND 1.7. E. M. Fields. October 1952. 20p. diagrs., photo. (NACA RM L52H18)

EFFECTS OF WING ELASTICITY ON THE AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WINGS AS OBTAINED FROM FREE-FLIGHT ROCKET-MODEL TESTS AT TRANSONIC SPEEDS. A. James Vitale. January 1953. 49p. diagrs., photos., tab. (NACA RM L52L30)

STATIC AEROELASTIC PHENOMENA OF M-, W-, AND Λ-WINGS. Franklin W. Diederich and Kenneth A. Foss. February 1953. ii, 111p. diagrs., tabs. (NACA RM L52J21)

WIND-TUNNEL INVESTIGATION OF THE STATIC LATERAL STABILITY CHARACTERISTICS OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. James W. Wiggins and Paul G. Fournier. April 1953. 25p. diagrs., photos. (NACA RM L53B25a)

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF VARIOUS PARAMETERS INCLUDING TIP MACH NUMBER ON THE FLUTTER OF SOME MODEL HELICOPTER ROTOR BLADES. George W. Brooks and John E. Baker. June 1953. 68p. diagrs., photos., tabs. (NACA RM L53D24)

FREE-FLIGHT LONGITUDINAL-STABILITY INVESTIGATION INCLUDING SOME EFFECTS OF WING ELASTICITY FROM MACH NUMBERS OF 0.85 TO 1.34 OF A TAILLESS MISSILE CONFIGURATION HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 5.5. Richard G. Arbic and Warren Gillespie, Jr. August 1953. 30p. diagrs., photos., tabs. (NACA RM L53F18)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A RECTANGULAR WING OF ASPECT RATIO 2 OSCILLATING ABOUT THE MIDCHORD. Edward Widmayer, Jr., Sherman A. Clevenson, and Sumner A. Leadbetter. August 1953. 45p. diagrs., tabs. (NACA RM L53F19)

AERODYNAMIC CHARACTERISTICS IN PITCH OF THREE STRUCTURALLY SIMILAR FLEXIBLE WINGS WITH 45° SWEEP: A SWEPTBACK WING, A WING WITH M PLAN FORM, AND A WING WITH W PLAN FORM. John W. McKee, Delwin R. Croom, and Rodger L. Naeseth. December 1953. 43p. diagrs., photos. (NACA RM L53J02a)

LATERAL CONTROL CHARACTERISTICS OF TWO STRUCTURALLY SIMILAR FLEXIBLE WINGS WITH 45° SWEEP: A SWEPTBACK WING AND A WING WITH M PLAN FORM. Rodger L. Naeseth, Delwin R. Croom, and John W. McKee. April 1954. 44p. diagrs., photo., tabs. (NACA RM L54C19)

FLIGHT INVESTIGATION OF AN AILERON AND A SPOILER ON A WING OF THE X-3 AIRPLANE PLAN FORM AT MACH NUMBERS FROM 0.5 TO 1.6. Roland D. English. June 1954. 16p. diagrs., photos. (NACA RM L54D26a)

EFFECT OF WING FLEXIBILITY ON THE DAMPING IN ROLL OF A NOTCHED DELTA WING-BODY COMBINATION BETWEEN MACH NUMBERS 0.6 AND APPROXIMATELY 2.2 AS DETERMINED WITH ROCKET-PROPELLED MODELS. William M. Bland, Jr. June 1954. 20p. diagrs., photos. (NACA RM L54E04)

EXPERIMENTAL AND PREDICTED LONGITUDINAL RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. November 1954. 63p. diagrs., photo., tabs. (NACA RM A54H09)

DEVELOPMENT OF A NEW FLUTTER TESTING TECHNIQUE USING A TOWED DYNAMIC AIRPLANE MODEL EQUIPPED WITH AN AUTOMATIC STABILIZING SYSTEM. EXPERIMENTAL AND CALCULATED DYNAMIC STABILITY CHARACTERISTICS FOR SPEEDS UP TO 200 MPH. William C. Schneider. March 1955. 50p. diagrs., photo., tabs. (NACA RM L54L23)

EXPERIMENTAL FLUTTER INVESTIGATION OF A THIN UNSWEPT WING AT TRANSONIC SPEEDS. George L. Pratt. April 1955. 24p. diagrs., tabs. (NACA RM L55A18)

THE EFFECTS OF FLEXIBILITY ON THE LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE OF A LARGE AIRPLANE. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. May 1955. 16p. diagrs. (NACA RM A55D14)

THEORETICAL INVESTIGATION OF FLUTTER OF TWO-DIMENSIONAL FLAT PANELS WITH ONE SURFACE EXPOSED TO SUPERSONIC POTENTIAL FLOW. Herbert C. Nelson and Herbert J. Cunningham. 1956. ii, 24p. diagrs., tabs. (NACA Rept. 1280. Supersedes TN 3465)

SAFEGUARDS AGAINST FLUTTER OF AIRPLANES. (Précautions a prendre pour éviter les vibrations aérodynamiques des avions. I - Voilure. II - Empennages). Gerhard De Vries. August 1956. 94p. diagrs. (NACA TM 1423. Trans. from: La Recherche Aéronautique, no.12, 1949, p.15-30. La Recherche Aéronautique, no.13, 1950, p.27-43)

AEROELASTIC PROBLEMS OF AIRPLANE DESIGN. (Aeroelastische Probleme des Flugzeugbaus). H. G. Küssner. November 1956. 51p. tabs. (NACA TM 1402. Translation from Zeitschrift für Flugwissenschaften, v.3, no.1, January 1955, p.1-18)

MEASUREMENT OF THE LONGITUDINAL MOMENT OF INERTIA OF A FLEXIBLE AIRPLANE. Henry A. Cole, Jr., and Frances L. Bennion. November 1956. 30p. diagrs., photos., tabs. (NACA TN 3870. Supersedes RM A55J21)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A WING-TANK CONFIGURATION OSCILLATING IN PITCH ABOUT THE WING MIDCHORD. Sherman A. Clevenson and Sumner A. Leadbetter. December 1956. 37p. diagrs., photo., tab. (NACA TN 3822)

WIND-TUNNEL INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS IN PITCH OF WING-FUSELAGE COMBINATIONS AT HIGH SUBSONIC SPEEDS. TAPER-RATIO SERIES. Thomas J. King, Jr., and Thomas B. Pasteur, Jr. December 1956. 36p. diagrs., photos., tab. (NACA TN 3867. Supersedes RM L53E20)

EXPERIMENTAL AND PREDICTED LATERAL-DIRECTIONAL DYNAMIC-RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Stuart C. Brown and Euclid C. Holleman. December 1956. 74p. diagrs., photo., tabs. (NACA TN 3874)

SOME EXPERIMENTAL STUDIES OF PANEL FLUTTER AT MACH NUMBER 1.3. Maurice A. Sylvester and John E. Baker. February 1957. 25p. diagrs., photos., tab. (NACA TN 3914. Supersedes RM L52I16)

EXPERIMENTAL INVESTIGATION OF THE OSCILLATING FORCES AND MOMENTS ON A TWO-DIMENSIONAL WING EQUIPPED WITH AN OSCILLATING CIRCULAR-ARC SPOILER. Sherman A. Clevenson and John E. Tomassoni. March 1957. 20p. diagrs., photos. (NACA TN 3949. Supersedes RM L53K18)

A COLLECTION OF DATA FOR ZERO-LIFT DAMPING IN ROLL OF WING-BODY COMBINATIONS AS DETERMINED WITH ROCKET-POWERED MODELS EQUIPPED WITH ROLL-TORQUE NOZZLES. David G. Stone. April 1957. 23p. diagrs., tab. (NACA TN 3955. Supersedes RM L53E26)

ANALYSIS OF STATIC AEROELASTIC BEHAVIOR OF LOW-ASPECT-RATIO RECTANGULAR WINGS. John M. Hedgepeth and Paul G. Waner, Jr. April 1957. 21p. diagrs. (NACA TN 3958)

(1.10)
Parachutes

AN INVESTIGATION OF THE SPIN AND RECOVERY CHARACTERISTICS OF A 1/25-SCALE MODEL OF THE DOUGLAS D-558-II AIRPLANE. Stanley H. Scher and Lawrence J. Gale. January 18, 1949. 29p. diagrs., photos., tabs. (NACA RM L8K19a)

(2)
HYDRODYNAMICS

(2.1)
Theory

WATER-IMPACT THEORY FOR AIRCRAFT EQUIPPED WITH NONTRIMMING HYDRO-SKIS MOUNTED ON SHOCK STRUTS. Emanuel Schnitzer. October 1954. 29p. diagrs. (NACA RM L54H10)

THE HYDRODYNAMIC CHARACTERISTICS OF MODIFIED RECTANGULAR FLAT PLATES HAVING ASPECT RATIOS OF 1.00, 0.25, AND 0.125 AND OPERATING NEAR A FREE WATER SURFACE. Kenneth L. Wadlin, John A. Ramsen, and Victor L. Vaughan, Jr. 1955. ii, 50p. diagrs., photos. (NACA Rept. 1246. Supersedes TN 3079; TN 3249)

REDUCTION OF HYDRODYNAMIC IMPACT LOADS FOR WATERBORNE AIRCRAFT. Emanuel Schnitzer. July 1955. 17p. diagrs. (NACA RM L55E09b)

THEORETICAL DETERMINATION OF WATER LOADS ON PITCHING HULLS AND SHOCK-MOUNTED HYDRO-SKIS. Emanuel Schnitzer. October 1956. 65p. diagrs., tab. (NACA RM L56E31)

IMPACT-LOADS INVESTIGATION OF CHINE-IMMERSED MODELS HAVING CONCAVE-CONVEX TRANSVERSE SHAPE AND STRAIGHT OR CURVED KEEL LINES. Philip M. Edge, Jr. February 1957. 66p. diagrs., photos., tabs. (NACA TN 3940)

A THEORETICAL AND EXPERIMENTAL STUDY OF PLANING SURFACES INCLUDING EFFECTS OF CROSS SECTION AND PLAN FORM. Charles L. Shuford, Jr. March 1957. 126p. diagrs., photos., tabs. (NACA TN 3939)

(2.2)
General Arrangement Studies

TANK INVESTIGATION OF THE GRUMMAN JRF-5 AIRPLANE FITTED WITH HYDRO-SKIS SUITABLE FOR OPERATION ON WATER, SNOW, AND ICE. Kenneth L. Wadlin and John A. Ramsen. June 12, 1950. 30p. diagrs., photos. (NACA RM L9K29)

TANK INVESTIGATION OF THE GRUMMAN JRF-5 AIRPLANE WITH A SINGLE HYDRO-SKI AND AN EXTENDED AFTERBODY. John A. Ramsen and George R. Gray. August 1951. 12p. diagrs., photos. (NACA RM L51E21)

PRELIMINARY TANK TESTS OF SOME HYDRO-SKI-WHEEL COMBINATIONS IN THE PLANING CONDITION. Norman S. Land and Rudolph E. Fontana. October 1952. 71p. diagrs. (NACA RM L52H15)

COMPARISON OF EXPERIMENTAL HYDRODYNAMIC IMPACT LOADS AND MOTIONS FOR A V-STEP AND A TRANSVERSE-STEP HYDRO-SKI. Robert W. Miller. February 1954. 14p. diagrs., tabs. (NACA RM L53K20a)

WATER-IMPACT THEORY FOR AIRCRAFT EQUIPPED WITH NONTRIMMING HYDRO-SKIS MOUNTED ON SHOCK STRUTS. Emanuel Schnitzer. October 1954. 29p. diagrs. (NACA RM L54H10)

PRELIMINARY INVESTIGATION OF THE EFFECTS OF EXTERNAL WING FUEL TANKS ON DITCHING BEHAVIOR OF A SWEPTBACK-WING AIRPLANE. Ellis E. McBride. July 1956. 21p. diagrs., photos., tab. (NACA TN 3710)

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INVESTIGATION OF THE PLANING LIFT OF A FLAT PLATE AT SPEEDS UP TO 170 FEET PER SECOND. Kenneth W. Christopher. March 1957. 15p. diagrs., photos., tab. (NACA TN 3951)

(2.3)
Seaplane Hull Variables

PLANING CHARACTERISTICS OF SIX SURFACES REPRESENTATIVE OF HYDRO-SKI FORMS. Kenneth L. Wadlin and John R. McGehee. February 10, 1950. 150p. diagrs., photos., tab. (NACA RM L9L20)

IMPACT-LOADS INVESTIGATION OF CHINE-IMMERSED MODELS HAVING CONCAVE-CONVEX TRANSVERSE SHAPE AND STRAIGHT OR CURVED KEEL LINES. Philip M. Edge, Jr. February 1957. 66p. diagrs., photos., tabs. (NACA TN 3940)

(2.3.1)
LENGTH-BEAM RATIO

COMPARISON OF EXPERIMENTAL HYDRODYNAMIC IMPACT LOADS AND MOTIONS FOR A V-STEP AND A TRANSVERSE-STEP HYDRO-SKI. Robert W. Miller. February 1954. 14p. diagrs., tabs. (NACA RM L53K20a)

THE HYDRODYNAMIC FORCE CHARACTERISTICS OF STREAMLINE BODIES OF REVOLUTION HAVING FINENESS RATIOS OF 6, 9, AND 12 WITH AND WITHOUT CHINE STRIPS. Bernard Weinflash and Rudolph E. Fontana. March 1955. 157p. diagrs., photos., tabs. (NACA RM L54K22)

REDUCTION OF HYDRODYNAMIC IMPACT LOADS FOR WATERBORNE AIRCRAFT. Emanuel Schnitzer. July 1955. 17p. diagrs. (NACA RM L55E09b)

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(2.3.2)
DEAD RISE

PLANING CHARACTERISTICS OF SIX SURFACES REPRESENTATIVE OF HYDRO-SKI FORMS. Kenneth L. Wadlin and John R. McGehee. February 10, 1950. 150p. diagrs., photos., tab. (NACA RM L9L20)

REDUCTION OF HYDRODYNAMIC IMPACT LOADS FOR WATERBORNE AIRCRAFT. Emanuel Schnitzer. July 1955. 17p. diagrs. (NACA RM L55E09b)

PRELIMINARY INVESTIGATION OF THE EFFECTS OF EXTERNAL WING FUEL TANKS ON DITCHING BEHAVIOR OF A SWEPTBACK-WING AIRPLANE. Ellis E. McBride. July 1956. 21p. diagrs., photos., tab. (NACA TN 3710)

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(2.3.4)
AFTERBODY SHAPE

THE HYDRODYNAMIC FORCE CHARACTERISTICS OF STREAMLINE BODIES OF REVOLUTION HAVING FINENESS RATIOS OF 6, 9, AND 12 WITH AND WITHOUT CHINE STRIPS. Bernard Weinflash and Rudolph E. Fontana. March 1955. 157p. diagrs., photos., tabs. (NACA RM L54K22)

TANK INVESTIGATION OF THE GRUMMAN JRF-5 AIRPLANE WITH A SINGLE HYDRO-SKI AND AN EXTENDED AFTERBODY. John A. Ramsen and George R. Gray. August 1951. 12p. diagrs., photos. (NACA RM L51E21)

HYDRODYNAMIC PRESSURE DISTRIBUTION OBTAINED WITH A STREAMLINE BODY EQUIPPED WITH CHINE STRIPS. Bernard Weinflash. September 1955. 29p. diagrs., photos., tabs. (NACA RM L55F20)

(2.3.5)
FOREBODY SHAPE

THE HYDRODYNAMIC FORCE CHARACTERISTICS OF STREAMLINE BODIES OF REVOLUTION HAVING FINENESS RATIOS OF 6, 9, AND 12 WITH AND WITHOUT CHINE STRIPS. Bernard Weinflash and Rudolph E. Fontana. March 1955. 157p. diagrs., photos., tabs. (NACA RM L54K22)

(2.3.6)
CHINES

THE HYDRODYNAMIC FORCE CHARACTERISTICS OF STREAMLINE BODIES OF REVOLUTION HAVING FINENESS RATIOS OF 6, 9, AND 12 WITH AND WITHOUT CHINE STRIPS. Bernard Weinflash and Rudolph E. Fontana. March 1955. 157p. diagrs., photos., tabs. (NACA RM L54K22)

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(2.4)
Specific Seaplanes and Hulls

FORCE CHARACTERISTICS IN THE SUBMERGED AND PLANING CONDITION OF A 1/5.78-SCALE MODEL OF A HYDRO-SKI-WHEEL COMBINATION FOR THE GRUMMAN JRF-5 AIRPLANE. Norman S. Land and Charles A. Pelz. July 1952. 28p. diagrs., tab. (NACA RM L52B28)

(2.5)
Lateral Stabilizers

(2.5.1)
WING-TIP FLOAT

THE HYDRODYNAMIC FORCE CHARACTERISTICS OF STREAMLINE BODIES OF REVOLUTION HAVING FINENESS RATIOS OF 6, 9, AND 12 WITH AND WITHOUT CHINE STRIPS. Bernard Weinflash and Rudolph E. Fontana. March 1955. 157p. diagrs., photos., tabs. (NACA RM L54K22)

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(2.6)
Planing Surfaces

PLANING CHARACTERISTICS OF SIX SURFACES REPRESENTATIVE OF HYDRO-SKI FORMS. Kenneth L. Wadlin and John R. McGehee. February 10, 1950. 150p. diagrs., photos., tab. (NACA RM L9L20)

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COMPARISON OF EXPERIMENTAL HYDRODYNAMIC IMPACT LOADS AND MOTIONS FOR A V-STEP AND A TRANSVERSE-STEP HYDRO-SKI. Robert W. Miller. February 1954. 14p. diagrs., tabs. (NACA RM L53K20a)

A THEORETICAL AND EXPERIMENTAL STUDY OF PLANING SURFACES INCLUDING EFFECTS OF CROSS SECTION AND PLAN FORM. Charles L. Shuford, Jr. March 1957. 126p. diagrs., photos., tabs. (NACA TN 3939)

INVESTIGATION OF THE PLANING LIFT OF A FLAT PLATE AT SPEEDS UP TO 170 FEET PER SECOND. Kenneth W. Christopher. March 1957. 15p. diagrs., photos., tab. (NACA TN 3951)

(2.7)
Hydrofoils

THE HYDRODYNAMIC CHARACTERISTICS OF MODIFIED RECTANGULAR FLAT PLATES HAVING ASPECT RATIOS OF 1.00, 0.25, AND 0.125 AND OPERATING NEAR A FREE WATER SURFACE. Kenneth L. Wadlin, John A. Ramsen, and Victor L. Vaughan, Jr. 1955. ii, 50p. diagrs., photos. (NACA Rept. 1246. Supersedes TN 3079; TN 3249)

THEORETICAL DETERMINATION OF WATER LOADS ON PITCHING HULLS AND SHOCK-MOUNTED HYDRO-SKIS. Emanuel Schnitzer. October 1956. 65p. diagrs., tab. (NACA RM L56E31)

AN EXPERIMENTAL HYDRODYNAMIC INVESTIGATION OF THE INCEPTION OF VORTEX VENTILATION. John A. Ramsen. April 1957. 31p. diagrs., photos. (NACA TN 3903)

HYDRODYNAMIC CHARACTERISTICS OVER A RANGE OF SPEEDS UP TO 80 FEET PER SECOND OF A RECTANGULAR MODIFIED FLAT PLATE HAVING AN ASPECT RATIO OF 0.25 AND OPERATING AT SEVERAL DEPTHS OF SUBMERSION. Victor L. Vaughan, Jr., and John A. Ramsen. April 1957. 23p. diagrs. (NACA TN 3908)

(2.8)
Surface Craft

WATER-IMPACT THEORY FOR AIRCRAFT EQUIPPED WITH NONTRIMMING HYDRO-SKIS MOUNTED ON SHOCK STRUTS. Emanuel Schnitzer. October 1954. 29p. diagrs. (NACA RM L54H10)

(2.9)
Ditching Characteristics

PRELIMINARY INVESTIGATION OF THE EFFECTS OF EXTERNAL WING FUEL TANKS ON DITCHING BEHAVIOR OF A SWEPTBACK-WING AIRPLANE. Ellis E. McBride. July 1956. 21p. diagrs., photos., tab. (NACA TN 3710)

MODEL DITCHING INVESTIGATION OF A JET TRANSPORT AIRPLANE WITH VARIOUS ENGINE INSTALLATIONS. William C. Thompson. August 1956. 27p. diagrs., photos., tabs. (NACA RM L56G10)

DITCHING INVESTIGATIONS OF DYNAMIC MODELS AND EFFECTS OF DESIGN PARAMETERS ON DITCHING CHARACTERISTICS. Lloyd J. Fisher and Edward L. Hoffman. February 1957. 58p. tabs. (NACA TN 3946)

(2.10)
Stability and Control

(2.10.1)
LONGITUDINAL

REDUCTION OF HYDRODYNAMIC IMPACT LOADS FOR WATERBORNE AIRCRAFT. Emanuel Schnitzer. July 1955. 17p. diagrs. (NACA RM L55E09b)

(3)
PROPULSION

(3.1)
Complete Systems

PRELIMINARY ESTIMATE OF PERFORMANCE OF A TURBOJET ENGINE WHEN INLET PRESSURE IS REDUCED BELOW EXHAUST PRESSURE. H. D. Wilsted and W. D. Stemples. February 18, 1948. 42p. diagrs. (NACA RM E7I30)

(3.1.1)
RECIPROCATING ENGINES

ASPECTS OF INTERNAL-FLOW-SYSTEM DESIGN FOR HELICOPTER PROPULSIVE UNITS. John R. Henry. September 1954. 24p. diagrs. (NACA RM L54F29)

PROPOSED INITIATING SYSTEM FOR CRASH-FIRE PREVENTION SYSTEMS. Jacob C. Moser and Dugald O. Black. December 1956. 18p. diagrs. (NACA TN 3774)

(3.1.3)
TURBOJET ENGINES

PRELIMINARY ESTIMATE OF PERFORMANCE OF A TURBOJET ENGINE WHEN INLET PRESSURE IS REDUCED BELOW EXHAUST PRESSURE. H. D. Wilsted and W. D. Stemples. February 18, 1948. 42p. diagrs. (NACA RM E7I30)

ALTITUDE-WIND-TUNNEL INVESTIGATION OF AN-F-58 FUEL IN EXPERIMENTAL VERSION OF J47 TURBOJET ENGINE. Carl L. Meyer. May 2, 1949. 16p. diagrs., tab. (NACA RM E8L13)

IGNITION-ENERGY REQUIREMENTS IN A SINGLE TUBULAR COMBUSTOR. Hampton H. Foster. March 27, 1951. 27p. diagrs., tab. (NACA RM E51A24)

RELATION OF ENGINE TURBINE-BLADE LIFE TO STRESS-RUPTURE PROPERTIES OF THE ALLOYS, STELLITE 21, HASTELLOY B, CAST S-816, FORGED S-816, X-40, NIMONIC 80, REFRACTALOY 26, N-155, AND INCONEL X. F. B. Garrett and C. Yaker. August 1951. 59p. diagrs., photos., tabs. (NACA RM E51G13)

STEADY-STATE ENGINE WINDMILLING AND ENGINE SPEED DECAY CHARACTERISTICS OF AN AXIAL-FLOW TURBOJET ENGINE. A. E. Sobolewski and J. M. Farley. December 1951. 20p. diagrs., photo. (NACA RM E51I06)

SOME DYNAMIC CHARACTERISTICS OF A TURBOJET ENGINE FOR LARGE ACCELERATIONS. Herbert Heppler, David Novik, and Marcel Dandois. August 1952. 20p. diagrs., photos. (NACA RM E52H04)

ANALYTICAL PROCEDURES FOR RAPID SELECTION OF COOLANT PASSAGE CONFIGURATIONS FOR AIR-COOLED TURBINE ROTOR BLADES AND FOR EVALUATION OF HEAT-TRANSFER, STRENGTH, AND PRESSURE-LOSS CHARACTERISTICS. Robert R. Ziemer and Henry O. Slone. September 1952. 53p. diagrs., tabs. (NACA RM E52G18)

EFFECT OF FUEL VOLATILITY CHARACTERISTICS ON IGNITION-ENERGY REQUIREMENTS IN A TURBOJET COMBUSTOR. Hampton H. Foster and David M. Straight. January 1953. 32p. diagrs., tab. (NACA RM E52J21)

PHOTOGRAPHIC STUDIES OF PREIGNITION ENVIRONMENT AND FLAME INITIATION IN TURBOJET-ENGINE COMBUSTORS. David M. Straight and J. Dean Gernon. February 1953. 40p. photos., diagrs. (NACA RM E52I11)

DETERMINATION OF SURGE AND STALL LIMITS OF AN AXIAL-FLOW TURBOJET ENGINE FOR CONTROL APPLICATIONS. Ross D. Schmidt, George Vasu, and Edward W. McGraw. August 1953. 30p. diagrs., tab. (NACA RM E53B10)

METHOD FOR ESTIMATING COMBUSTION EFFICIENCY AT ALTITUDE FLIGHT CONDITIONS FROM COMBUSTOR TESTS AT LOW PRESSURES. Walter T. Olson, J. Howard Childs, and Wilfred E. Scull. August 1953. 15p. diagrs. (NACA RM E53F17)

EVALUATION OF ETHYL ETHER AS AN IGNITION AID FOR TURBOJET ENGINE FUELS. Edmund R. Jonash and Hampton H. Foster. October 1953. 11p. diagrs., tab. (NACA RM E53I02)

ANALYSIS OF PART-SPEED OPERATION FOR HIGH-PRESSURE-RATIO MULTISTAGE AXIAL-FLOW COMPRESSORS. William A. Benser. December 1953. 41p. diagrs., tab. (NACA RM E53I15)

A METHOD OF MEASURING JET THRUST OF TURBOJET ENGINES IN FLIGHT INSTALLATIONS. Joseph N. Sivo and David B. Fenn. January 1954. 19p. diagrs., photo. (NACA RM E53J15)

HIGH-TEMPERATURE LUBRICANTS AND BEARINGS FOR AIRCRAFT TURBINE ENGINES. NACA Subcommittee on Lubrication and Wear. APPENDIX A: HIGH-SPEED AIRCRAFT MISSIONS. C. M. Michaels, Wright Air Development Center. APPENDIX B: ENGINE DESIGN TRENDS AFFECTING LUBRICANTS AND BEARINGS. C. C. Singleterry, Bureau of Aeronautics, Department of the Navy. APPENDIX C: PROBLEMS ENCOUNTERED AT HIGH TEMPERATURES IN LUBRICATION SYSTEMS OF TURBINE ENGINES. G. P. Townsend, Westinghouse Electric Corp. APPENDIX D: TURBOPROP GEAR LUBRICATION PROBLEMS. C. J. McDowall, General Motors Corp. APPENDIX E: NOTES ON HIGH-TEMPERATURE FLUIDS AND LUBRICANTS. E. E. Klaus and M. R. Fenske, Pennsylvania State College. APPENDIX F: NACA RESEARCH ON LUBRICANTS, BEARINGS, AND LUBRICATION FOR HIGH-TEMPERATURE TURBINE ENGINES. R. L. Johnson and E. E. Bisson. APPENDIX G: HIGH-TEMPERATURE BEARING PROBLEMS. F. W. Wellons. July 1954. (i), 101p. diagrs., photos., tabs. (NACA RM E54D27)

INVESTIGATION OF MECHANICAL FASTENINGS FOR SOLID TURBINE BLADES MADE FROM DUCTILE MATERIALS. André J. Meyer, Jr., Albert Kaufman, and W. C. Caywood. August 1954. 45p. diagrs., photos., tabs. (NACA RM E54E21)

ASPECTS OF INTERNAL-FLOW-SYSTEM DESIGN FOR HELICOPTER PROPULSIVE UNITS. John R. Henry. September 1954. 24p. diagrs. (NACA RM L54F29)

EFFECTS OF DIFFUSER AND CENTER-BODY LENGTH ON PERFORMANCE OF ANNULAR DIFFUSERS WITH CONSTANT-DIAMETER OUTER WALLS AND WITH VORTEX-GENERATOR FLOW CONTROLS. Charles C. Wood and James T. Higginbotham. September 1954. 39p. diagrs., photo., tab. (NACA RM L54G21)

ANALYTICAL DETERMINATION OF EFFECT OF TURBINE COOLING-AIR-IMPELLER PERFORMANCE ON ENGINE PERFORMANCE AND COMPARISON OF EXPERIMENTALLY DETERMINED PERFORMANCE OF IMPELLERS WITH AND WITHOUT INDUCER VANES. Louis J. Schafer, Jr., and Robert O. Hickel. October 1954. 44p. diagrs., photos. (NACA RM E54H12)

INVESTIGATION OF TWO SHORT ANNULAR DIFFUSER CONFIGURATIONS UTILIZING SUCTION AND INJECTION AS A MEANS OF BOUNDARY-LAYER CONTROL. Stafford W. Wilbur and James T. Higginbotham. January 1955. 43p. diagrs. (NACA RM L54K18)

AN EXPERIMENTAL EVALUATION OF SEVERAL DESIGN VARIATIONS OF HOLLOW TURBINE BLADES FOR EXPENDABLE ENGINE APPLICATION. W. C. Morgan and R. H. Kemp. February 1955. 33p. diagr., photos., tabs. (NACA RM E54K23)

PERFORMANCE OF AS-FORGED, HEAT-TREATED, AND OVERAGED S-816 BLADES IN A TURBOJET ENGINE. J. W. Weeton, F. J. Clauss, and J. R. Johnston. March 1955. 51p. diagrs., photos., tabs. (NACA RM E54K17)

EFFECTS OF TURBINE COOLING WITH COMPRESSOR AIR BLEED ON GAS-TURBINE ENGINE PERFORMANCE. Jack B. Esgar and Robert R. Ziemer. March 1955. 45p. diagrs. (NACA RM E54L20)

ENGINE PERFORMANCE OF PRECISION-FORGED, ELECTRO-POLISHED AND MACHINED BLADES OF NIMONIC 80 AND 80A ALLOYS. Paul F. Sikora and James R. Johnston. April 1955. 27p. diagrs., photos., tabs. (NACA RM E55A21)

AN EVALUATION OF ELECTROPOLISHED AND NONELECTROPOLISHED BLADES OF ALLOYS REFRACTALOY 26, M-252, AND WASPALOY IN A J33-9 TURBOJET ENGINE. F. J. Clauss, R. A. Signorelli, and J. R. Johnston. June 1955. 27p. diagrs., photos., tabs. (NACA RM E54L29a)

PERFORMANCE OF INCONEL 550 TURBINE BLADES IN A TURBOJET ENGINE AND EFFECTS OF DIFFERENT FORGING TEMPERATURES AND HEAT TREATMENTS. C. A. Gyorgak, J. R. Johnston, and J. W. Weeton. August 1955. 55p. diagrs., photos., tabs. (NACA RM E55F08)

THE NEAR NOISE FIELD OF STATIC JETS AND SOME MODEL STUDIES OF DEVICES FOR NOISE REDUCTION. Leslie W. Lassiter and Harvey H. Hubbard. 1956. i, 12p. diagrs., photos. (NACA Rept. 1261. Supersedes TN 3187)

EFFECTS OF A STRAIGHTENING OPERATION ON PERFORMANCE OF INCONEL 550 BUCKETS. C. A. Gyorgak, J. R. Johnston, and J. W. Weeton. February 1956. 24p. diagrs., photos., tabs. (NACA RM E55L06)

NEAR NOISE FIELD OF A JET-ENGINE EXHAUST. II - CROSS CORRELATION OF SOUND PRESSURES. Edmund E. Callaghan, Walton L. Howes, and Willard D. Coles. Appendix: CORRELATION COMPUTER. Channing C. Conger and Donald F. Berg. September 1956. 53p. diagrs., photos., tab. (NACA TN 3764)

THE DESIGN OF BRITTLE-MATERIAL BLADE ROOTS BASED ON THEORY AND RUPTURE TESTS OF PLASTIC MODELS. André J. Meyer, Jr., Albert Kaufman, and William C. Caywood. September 1956. 46p. diagrs., photos., tab. (NACA TN 3773. Supersedes RM E53C12)

NEAR NOISE FIELD OF A JET-ENGINE EXHAUST. I - SOUND PRESSURES. Walton L. Howes and Harold R. Mull. October 1956. 51p. diagrs., photos. (NACA TN 3763)

PROPOSED INITIATING SYSTEM FOR CRASH-FIRE PREVENTION SYSTEMS. Jacob C. Moser and Dugald O. Black. December 1956. 18p. diagrs. (NACA TN 3774)

EFFECT OF AMBIENT-TEMPERATURE VARIATION ON THE MATCHING REQUIREMENTS OF INLET-ENGINE COMBINATIONS AT SUPERSONIC SPEEDS. Eugene Perchonok and Donald P. Hearth. January 1957. 16p. diagrs. (NACA TN 3834)

SURVEY OF MICROSTRUCTURES AND MECHANICAL PROPERTIES OF OVERTEMPERATURED S-816 TURBINE BUCKETS FROM J47 ENGINES. S. Floreen and R. A. Signorelli. March 1957. 41p. diagrs., photos., tabs. (NACA RM E56K30)

EVALUATION OF THE USE OF ELECTRICAL RESISTANCE FOR DETECTING OVERTEMPERATURED S-816 TURBINE BLADES. Leonard Robins. March 1957. 22p. diagrs., photos., tabs. (NACA RM E57A29a)

EXPERIMENTAL COMPARISON OF SPEED - FUEL-FLOW AND SPEED-AREA CONTROLS ON A TURBOJET ENGINE FOR SMALL STEP DISTURBANCES. L. M. Wenzel, C. E. Hart, and R. T. Craig. March 1957. 56p. diagrs. (NACA TN 3926)

EXPERIMENTAL INVESTIGATION OF TEMPERATURE FEEDBACK CONTROL SYSTEMS APPLICABLE TO TURBOJET-ENGINE CONTROL. C. E. Hart, L. M. Wenzel, and R. T. Craig. March 1957. 56p. diagrs. (NACA TN 3936)

INVESTIGATION OF A FULL-SCALE, CASCADE-TYPE THRUST REVERSER. Robert C. Kohl and Joseph S. Algranti. April 1957. 53p. diagrs., photos. (NACA TN 3975)

ORIGIN AND PREVENTION OF CRASH FIRES IN TURBOJET AIRCRAFT. I. Irving Pinkel, Solomon Weiss, G. Merritt Preston, and Gerard J. Pesman. May 1957. 65p. diagrs., photos., tab. (NACA TN 3973)

EFFECT OF STANDING TRANSVERSE ACOUSTIC OSCILLATIONS ON FUEL-OXIDANT MIXING IN CYLINDRICAL COMBUSTION CHAMBERS. William R. Mickelsen. May 1957. (i), 49p. diagrs. (NACA TN 3983)

DESIGN AND EXPERIMENTAL EVALUATION OF A LIGHT-WEIGHT TURBINE-WHEEL ASSEMBLY. W. C. Morgan and R. H. Kemp. June 1957. 25p. diagrs., photos. (NACA TN 4023)

(3.1.4)
TURBO-PROPELLER ENGINES

ANALYSIS OF PART-SPEED OPERATION FOR HIGH-PRESSURE-RATIO MULTISTAGE AXIAL-FLOW COMPRESSORS. William A. Benser. December 1953. 41p. diagrs., tab. (NACA RM E53I15)

HIGH-TEMPERATURE LUBRICANTS AND BEARINGS FOR AIRCRAFT TURBINE ENGINES. NACA Subcommittee on Lubrication and Wear. APPENDIX A: HIGH-SPEED AIRCRAFT MISSIONS. C. M. Michaels, Wright Air Development Center. APPENDIX B: ENGINE DESIGN TRENDS AFFECTING LUBRICANTS AND BEARINGS. C. C. Singleterry, Bureau of Aeronautics, Department of the Navy. APPENDIX C: PROBLEMS ENCOUNTERED AT HIGH TEMPERATURES IN LUBRICATION SYSTEMS OF TURBINE ENGINES. G. P. Townsend, Westinghouse Electric Corp. APPENDIX D: TURBOPROP GEAR LUBRICATION PROBLEMS. C. J. McDowall, General Motors Corp. APPENDIX E: NOTES ON HIGH-TEMPERATURE FLUIDS AND LUBRICANTS. E. E. Klaus and M. R. Fenske, Pennsylvania State College. APPENDIX F: NACA RESEARCH ON LUBRICANTS, BEARINGS, AND LUBRICATION FOR HIGH-TEMPERATURE TURBINE ENGINES. R. L. Johnson and E. E. Bisson. APPENDIX G: HIGH-TEMPERATURE BEARING PROBLEMS. F. W. Wellons. July 1954. (i), 101p. diagrs., photos., tabs. (NACA RM E54D27)

EFFECTS OF TURBINE COOLING WITH COMPRESSOR AIR BLEED ON GAS-TURBINE ENGINE PERFORMANCE. Jack B. Esgar and Robert R. Ziemer. March 1955. 45p. diagrs. (NACA RM E54L20)

EFFECT OF FLIGHT SPEED ON DYNAMICS OF A TURBOPROP ENGINE. S. Nakanishi, R. T. Craig, and D. B. Wile. April 1955. 40p. diagrs., photo., tabs. (NACA RM E55A05)

PROPOSED INITIATING SYSTEM FOR CRASH-FIRE PREVENTION SYSTEMS. Jacob C. Moser and Dugald O. Black. December 1956. 18p. diagrs. (NACA TN 3774)

(3.1.6)
PULSE-JET ENGINES

THE EFFECT OF FORWARD-FLIGHT SPEED ON THE PROPULSIVE CHARACTERISTICS OF A PULSE-JET ENGINE MOUNTED ON A HELICOPTER ROTOR. Robert D. Powell, Jr. January 1957. 23p. diagrs., photos. (NACA TN 3855)

(3.1.7)
RAM-JET ENGINES

FREE-FLIGHT PERFORMANCE OF 16-INCH-DIAMETER SUPERSONIC RAM-JET UNITS. II - FIVE UNITS DESIGNED FOR COMBUSTION-CHAMBER-INLET MACH NUMBER OF 0.16 AT FREE-STREAM MACH NUMBER OF 1.60 (UNITS B-1, B-2, B-4, AND B-5). Wesley E. Messing and Scott H. Simpkinson. May 5, 1950. 44p. diagrs., photos., tab. (NACA RM E50B14)

FREE-FLIGHT PERFORMANCE OF 16-INCH-DIAMETER SUPERSONIC RAM-JET UNITS. III - FOUR UNITS DESIGNED FOR COMBUSTION-CHAMBER-INLET MACH NUMBER OF 0.245 AT FREE-STREAM MACH NUMBER OF 1.8 (UNITS D-1, D-2, D-3, AND D-4). John H. Disher and Leonard Rabinowitz. June 28, 1950. 41p. diagrs., photos. (NACA RM E50D07)

FREE-FLIGHT PERFORMANCE OF 16-INCH-DIAMETER SUPERSONIC RAM-JET UNITS. IV - PERFORMANCE OF RAM-JET UNITS DESIGNED FOR COMBUSTION-CHAMBER-INLET MACH NUMBER OF 0.21 AT FREE-STREAM MACH NUMBER OF 1.6 OVER A RANGE OF FLIGHT CONDITIONS. Leonard Rabb and Warren J. North. February 26, 1951. 46p. diagrs., photos., tab. (NACA RM E50L18)

AN EXPERIMENTAL INVESTIGATION OF THE COMBUSTION PROPERTIES OF A HYDROCARBON FUEL AND SEVERAL MAGNESIUM AND BORON SLURRIES. Albert M. Lord. April 1952. 30p. diagrs. (NACA RM E52B01)

INFLUENCE OF A CANARD-TYPE CONTROL SURFACE ON THE INTERNAL AND EXTERNAL PERFORMANCE CHARACTERISTICS OF NACELLE-MOUNTED SUPERSONIC DIFFUSERS (CONICAL CENTERBODY) AT A REARWARD BODY STATION FOR A MACH NUMBER OF 2.0. L. J. Obery and H. S. Krasnow. August 1952. 24p. diagrs. (NACA RM E52F16)

EFFECT OF PARTICLE SIZE AND STABILIZING ADDITIVES ON THE COMBUSTION PROPERTIES OF MAGNESIUM SLURRY. Albert M. Lord and Vernida E. Evans. January 1953. 28p. diagrs., photos. (NACA RM E52K12)

EXPERIMENTAL INVESTIGATION OF PHYSICAL AND COMBUSTION PROPERTIES OF SEVERAL RESIDUAL FUEL OILS AND MAGNESIUM - FUEL-OIL SLURRIES IN A RAM-JET-TYPE COMBUSTOR. Preston N. Cook, Jr., Vernida E. Evans, and Erwin A. Lezberg. June 1953. 23p. diagrs., photos., tab. (NACA RM E53D30)

MAGNESIUM-SLURRY COMBUSTION PERFORMANCE IN 6.5-INCH-DIAMETER RAM-JET ENGINE MOUNTED IN CONNECTED-PIPE FACILITY. J. Robert Branstetter, James B. Gibbs, and Warner B. Kaufman. August 1953. 63p. diagrs., photos., tabs. (NACA RM E53E27)

PERFORMANCE COMPARISON OF THREE CANARD-TYPE RAM-JET MISSILE CONFIGURATIONS AT MACH NUMBERS FROM 1.5 TO 2.0. Evan A. Fradenburgh and Emil J. Kremzier. August 1953. 31p. diagrs., tabs. (NACA RM E53F11)

STARTING CHARACTERISTICS AND COMBUSTION PERFORMANCE OF MAGNESIUM SLURRY IN 6.5-INCH-DIAMETER RAM-JET ENGINE MOUNTED IN CONNECTED-PIPE FACILITY. James B. Gibbs. January 1954. 25p. diagrs., tabs. (NACA RM E53K05)

BLOW-OUT VELOCITIES OF VARIOUS PETROLEUM, SLURRY, AND HYDRIDE FUELS IN A 1-7/8 INCH DIAMETER COMBUSTOR. Preston N. Cook, Jr., Albert M. Lord, and Samuel Kaye. April 1954. 20p. diagrs., tab. (NACA RM E54A28)

BLOW-OUT VELOCITIES OF SEVERAL SLURRY AND LIQUID FUELS IN A 1-7/8 INCH DIAMETER COMBUSTOR. James F. Morris, Robert M. Caves, and Albert M. Lord. February 1955. 12p. diagrs., tab. (NACA RM E54L27a)

A THEORY FOR STABILITY AND BUZZ PULSATION AMPLITUDE IN RAM JETS AND AN EXPERIMENTAL INVESTIGATION INCLUDING SCALE EFFECTS. Robert L. Trimpi. 1956. ii, 24p. diagrs., photos., tabs. (NACA Rept. 1265. Supersedes RM L53G28)

AN EXPERIMENTAL INVESTIGATION OF A FLAT RAM-JET ENGINE ON A HELICOPTER ROTOR. Robert D. Powell, Jr., and James P. Shivers. January 1956. 27p. diagrs., photo. (NACA RM L55F28)

AN ANALYSIS OF BUZZING IN SUPERSONIC RAM JETS BY A MODIFIED ONE-DIMENSIONAL NON-STATIONARY WAVE THEORY. Robert L. Trimpi. July 1956. 72p. diagrs., photos. (NACA TN 3695. Supersedes RM L52A18)

FREE-JET TESTS OF A 1.1-INCH-DIAMETER SUPERSONIC RAM-JET ENGINE. Joseph H. Judd and Otto F. Trout, Jr. February 1957. 24p. diagrs., photos., tabs. (NACA TN 3906. Supersedes RM L51L18)

EFFECT OF STANDING TRANSVERSE ACOUSTIC OSCILLATIONS ON FUEL-OXIDANT MIXING IN CYLINDRICAL COMBUSTION CHAMBERS. William R. Mickelsen. May 1957. (i), 49p. diagrs. (NACA TN 3983)

(3.1.8)
ROCKET ENGINES

THEORETICAL ANALYSIS OF THE PERFORMANCE OF A SUPERSONIC DUCTED ROCKET. Reece V. Hensley. February 13, 1948. 32p. diagrs. (NACA RM E7I05)

THEORETICAL PERFORMANCE OF DIBORANE AS A ROCKET FUEL. Vearl N. Huff, Clyde S. Calvert, and Virginia C. Erdmann. January 10, 1949. 31p. diagrs., tabs. (NACA RM E8I17a)

EXPERIMENTAL INVESTIGATION OF LIQUID DIBORANE - LIQUID OXYGEN PROPELLANT COMBINATION IN 100-POUND-THRUST ROCKET ENGINE. William H. Rowe, Paul M. Ordin, and John M. Diehl. May 9, 1949. 25p. diagrs., photos., tab. (NACA RM E9C11)

EXPERIMENTAL PERFORMANCE OF CHLORINE TRIFLUORIDE - HYDRAZINE PROPELLANT COMBINATION IN 100-POUND-THRUST ROCKET ENGINE. Paul M. Ordin and Riley O. Miller. August 15, 1949. 22p. diagrs., photos. (NACA RM E9F01)

EFFECT OF COMBUSTION-CHAMBER PRESSURE AND NOZZLE EXPANSION RATIO ON THEORETICAL PERFORMANCE OF SEVERAL ROCKET PROPELLANT SYSTEMS. Virginia E. Morrell. May 25, 1950. 15p. diagrs., tabs. (NACA RM E50C30)

NOTE ON SOME OBSERVED EFFECTS OF ROCKET-MOTOR OPERATION ON THE BASE PRESSURES OF BODIES IN FREE FLIGHT. Paul E. Purser, Joseph G. Thibodaux, and H. Herbert Jackson. November 16, 1950. 28p. diagrs., tabs. (NACA RM L50I18)

THEORETICAL PERFORMANCE OF LITHIUM AND FLUORINE AS A ROCKET PROPELLANT. Sanford Gordon and Vearl N. Huff. May 10, 1951. 22p. diagrs., tabs. (NACA RM E51C01)

THEORETICAL PERFORMANCE OF LIQUID AMMONIA, HYDRAZINE, AND MIXTURE OF LIQUID AMMONIA AND HYDRAZINE AS FUELS WITH LIQUID OXYGEN BIFLUORIDE AS OXIDANT FOR ROCKET ENGINES. I - MIXTURE OF LIQUID AMMONIA AND HYDRAZINE. Vearl N. Huff and Sanford Gordon. February 1952. 24p. diagrs., tabs. (NACA RM E51L11)

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF HIGH-PRESSURE TAILPIPE LENGTH ON THE PERFORMANCE OF SOLID-PROPELLANT MOTORS FOR ROCKET-POWERED AIRCRAFT. Charles J. Rodriguez. August 1952. 37p. diagrs., tabs. (NACA RM L52E12a)

THEORETICAL PERFORMANCE OF LIQUID AMMONIA, HYDRAZINE, AND MIXTURE OF LIQUID AMMONIA AND HYDRAZINE AS FUELS WITH LIQUID OXYGEN BIFLUORIDE AS OXIDANT FOR ROCKET ENGINES. II - HYDRAZINE. Vearl N. Huff and Sanford Gordon. September 1952. 20p. diagrs., tabs. (NACA RM E52G09)

INVESTIGATION OF VANES IMMERSED IN THE JET OF A SOLID-FUEL ROCKET MOTOR. Leo V. Giladett and Andrew R. Wineman. September 1952. 30p. diagrs., photos., tab. (NACA RM L52F12)

THEOREITCAL PERFORMANCE OF LIQUID AMMONIA, HYDRAZINE, AND MIXTURE OF LIQUID AMMONIA AND HYDRAZINE AS FUELS WITH LIQUID OXYGEN BIFLUORIDE AS OXIDANT FOR ROCKET ENGINES. III - LIQUID AMMONIA. Vearl N. Huff and Sanford Gordon. October 1952. 15p. diagrs., tabs. (NACA RM E52H14)

FLIGHT MEASUREMENTS OF PRESSURES ON BASE AND REAR PART OF FUSELAGE OF THE BELL X-1 RESEARCH AIRPLANE AT TRANSONIC SPEEDS, INCLUDING POWER EFFECTS. Ronald J. Knapp and Wallace E. Johnson. January 1953. 31p. diagrs., photos. (NACA RM L52L01)

THEORETICAL PERFORMANCE OF LIQUID HYDROGEN AND LIQUID FLUORINE AS A ROCKET PROPELLANT. Sanford Gordon and Vearl N. Huff. February 1953. 28p. diagrs., tabs. (NACA RM E52L11)

THEORETICAL PERFORMANCE OF LIQUID AMMONIA AND LIQUID FLUORINE AS A ROCKET PROPELLANT. Sanford Gordon and Vearl N. Huff. March 1953. 25p. diagrs., tabs. (NACA RM E53A26)

THEORETICAL PERFORMANCE OF LIQUID HYDRAZINE AND LIQUID FLUORINE AS A ROCKET PROPELLANT. Sanford Gordon and Vearl N. Huff. July 1953. 83p. diagrs., tabs. (NACA RM E53E12)

THEORETICAL PERFORMANCE OF MIXTURES OF LIQUID AMMONIA AND HYDRAZINE AS FUEL WITH LIQUID FLUORINE AS OXIDANT FOR ROCKET ENGINES. Sanford Gordon and Vearl N. Huff. July 1953. 43p. diagrs., tabs. (NACA RM E53F08)

THEORETICAL MAXIMUM PERFORMANCE OF LIQUID FLUORINE - LIQUID OXYGEN MIXTURES WITH JP-4 FUEL AS ROCKET PROPELLANTS. Sanford Gordon and Roger L. Wilkins. October 1954. 18p. diagrs., tabs. (NACA RM E54H09)

INJECTION PRINCIPLES FROM COMBUSTION STUDIES IN A 200-POUND-THRUST ROCKET ENGINE USING LIQUID OXYGEN AND HEPTANE. M. F. Heidmann and C. M. Auble. June 1955. 55p. diagrs., photos., tabs. (NACA RM E55C22)

FLIGHT INVESTIGATION OF THE PERFORMANCE OF A TWO-STAGE SOLID-PROPELLANT NIKE-DEACON (DAN) METEOROLOGICAL SOUNDING ROCKET. Robert H. Heitkotter. July 1956. 21p. diagrs., photos. (NACA TN 3739)

THEORETICAL PERFORMANCE OF JP-4 FUEL AND LIQUID OXYGEN AS A ROCKET PROPELLANT. II - EQUILIBRIUM COMPOSITION. Vearl N. Huff, Anthony Fortini, and Sanford Gordon. September 1956. 47p. diagrs., tabs. (NACA RM E56D23)

EXPERIMENTAL INVESTIGATION OF A LIGHTWEIGHT ROCKET CHAMBER. John E. Dalgleish and Adelbert O. Tischler. October 1956. 11p. photos. (NACA TN 3827. Supersedes RM E52L19a)

THEORETICAL ROCKET PERFORMANCE OF JP-4 FUEL WITH MIXTURES OF LIQUID OZONE AND FLUORINE. Vearl N. Huff and Sanford Gordon. January 1957. 22p. diagrs., tabs. (NACA RM E56K14)

THEORETICAL PERFORMANCE OF LIQUID HYDROGEN AND LIQUID FLUORINE AS A ROCKET PROPELLANT FOR A CHAMBER PRESSURE OF 600 POUNDS PER SQUARE INCH ABSOLUTE. Anthony Fortini and Vearl N. Huff. January 1957. 38p. diagrs., tabs. (NACA RM E56L10a)

HYDROGEN-OXYGEN EXPLOSIONS IN EXHAUST DUCTING. Paul M. Ordin. April 1957. 31p. diagrs., photos., tab. (NACA TN 3935)

SURVEY OF THE ACOUSTIC NEAR FIELD OF THREE NOZZLES AT A PRESSURE RATIO OF 30. Harold R. Mull and John C. Erickson, Jr. April 1957. 32p. diagrs., photos. (NACA TN 3978)

EFFECT OF STANDING TRANSVERSE ACOUSTIC OSCILLATIONS ON FUEL-OXIDANT MIXING IN CYLINDRICAL COMBUSTION CHAMBERS. William R. Mickelsen. May 1957. (i), 49p. diagrs. (NACA TN 3983)

(3.1.9) JET-DRIVEN ROTORS

ASPECTS OF INTERNAL-FLOW-SYSTEM DESIGN FOR HELICOPTER PROPULSIVE UNITS. John R. Henry. September 1954. 24p. diagrs. (NACA RM L54F29)

AN EXPERIMENTAL INVESTIGATION OF A FLAT RAM-JET ENGINE ON A HELICOPTER ROTOR. Robert D. Powell, Jr., and James P. Shivers. January 1956. 27p. diagrs., photo. (NACA RM L55F28)

THE EFFECT OF FORWARD-FLIGHT SPEED ON THE PROPULSIVE CHARACTERISTICS OF A PULSE-JET ENGINE MOUNTED ON A HELICOPTER ROTOR. Robert D. Powell, Jr. January 1957. 23p. diagrs., photos. (NACA TN 3855)

CHARTS FOR THE ANALYSIS OF FLOW IN A WHIRLING DUCT. Robert A. Makofski. May 1957. 21p. diagrs. (NACA TN 3950)

(3.1.10) NUCLEAR-ENERGY SYSTEMS

THEORETICAL ANALYSIS OF THE PERFORMANCE OF A SUPERSONIC DUCTED ROCKET. Reece V. Hensley. February 13, 1948. 32p. diagrs. (NACA RM E7I05)

REVIEW OF EXPERIMENTAL INVESTIGATIONS OF LIQUID-METAL HEAT TRANSFER. Bernard Lubarsky and Samuel J. Kaufman. 1956. ii, 33p. diagrs., tab. (NACA Rept. 1270. Supersedes TN 3336)

STEADY NUCLEAR COMBUSTION IN ROCKETS. (Stationäre Kernverbrennung in Raketen). E. Sänger. April 1957. 39p. diagrs., tab. (NACA TM 1405. Translation from Astronautica Acta, v.1, pt.2, 1955, p.61-88)

(3.2)
Control of Engines

PRELIMINARY ESTIMATE OF PERFORMANCE OF A TURBOJET ENGINE WHEN INLET PRESSURE IS REDUCED BELOW EXHAUST PRESSURE. H. D. Wilsted and W. D. Stemples. February 18, 1948. 42p. diagrs. (NACA RM E7I30)

ANALYSIS OF A FORM OF PEAK HOLDING CONTROL. G. J. Delio. March 1956. 57p. diagrs. (NACA RM E56B10)

RADIATION AND RECOVERY CORRECTIONS AND TIME CONSTANTS OF SEVERAL CHROMEL-ALUMEL THERMOCOUPLE PROBES IN HIGH-TEMPERATURE, HIGH-VELOCITY GAS STREAMS. George E. Glawe, Frederick S. Simmons, and Truman M. Stickney. October 1956. 25p. diagrs., photo., tabs. (NACA TN 3766)

(3.2.2)
CONTROL OF TURBOJET ENGINES

PRELIMINARY ESTIMATE OF PERFORMANCE OF A TURBOJET ENGINE WHEN INLET PRESSURE IS REDUCED BELOW EXHAUST PRESSURE. H. D. Wilsted and W. D. Stemples. February 18, 1948. 42p. diagrs. (NACA RM E7I30)

ALTITUDE-WIND-TUNNEL INVESTIGATION OF AN-F-58 FUEL IN EXPERIMENTAL VERSION OF J47 TURBOJET ENGINE. Carl L. Meyer. May 2, 1949. 16p. diagrs., tab. (NACA RM E8L13)

SOME DYNAMIC CHARACTERISTICS OF A TURBOJET ENGINE FOR LARGE ACCELERATIONS. Herbert Heppler, David Novik, and Marcel Dandois. August 1952. 20p. diagrs., photos. (NACA RM E52H04)

DETERMINATION OF SURGE AND STALL LIMITS OF AN AXIAL-FLOW TURBOJET ENGINE FOR CONTROL APPLICATIONS. Ross D. Schmidt, George Vasu, and Edward W. McGraw. August 1953. 30p. diagrs., tab. (NACA RM E53B10)

EXPERIMENTAL COMPARISON OF SPEED - FUEL-FLOW AND SPEED-AREA CONTROLS ON A TURBOJET ENGINE FOR SMALL STEP DISTURBANCES. L. M. Wenzel, C. E. Hart, and R. T. Craig. March 1957. 56p. diagrs. (NACA TN 3926)

EXPERIMENTAL INVESTIGATION OF TEMPERATURE FEEDBACK CONTROL SYSTEMS APPLICABLE TO TURBOJET-ENGINE CONTROL. C. E. Hart, L. M. Wenzel, and R. T. Craig. March 1957. 56p. diagrs. (NACA TN 3936)

(3.2.4)
CONTROL OF TURBINE-PROPELLER ENGINES

EFFECT OF FLIGHT SPEED ON DYNAMICS OF A TURBOPROP ENGINE. S. Nakanishi, R. T. Craig, and D. B. Wile. April 1955. 40p. diagrs., photo., tabs. (NACA RM E55A05)

(3.3)
Auxiliary Booster Systems

PREPARATION AND HANDLING OF MAGNESIUM-HYDROCARBON SLURRIES FOR JET-ENGINE APPLICATIONS. Henry C. Barnett, A. M. Lord, and P. H. Wise. June 1955. 60p. diagrs., photos., tabs. (NACA RM E55D01)

(3.3.2)
GAS TURBINES

PREPARATION AND HANDLING OF MAGNESIUM-HYDROCARBON SLURRIES FOR JET-ENGINE APPLICATIONS. Henry C. Barnett, A. M. Lord, and P. H. Wise. June 1955. 60p. diagrs., photos., tabs. (NACA RM E55D01)

EXPLORATORY STUDY OF GROUND PROXIMITY EFFECTS ON THRUST OF ANNULAR AND CIRCULAR NOZZLES. Uwe H. von Glahn. April 1957. 48p. diagrs., photos. (NACA TN 3982)

(3.3.2.1)
LIQUID INJECTION

ANALYTICAL INVESTIGATION OF THE EFFECT OF WATER INJECTION ON SUPERSONIC TURBOJET-ENGINE - INLET MATCHING AND THRUST AUGMENTATION. Andrew Beke. January 1957. 25p. diagrs. (NACA TN 3922)

(3.3.2.2)
AFTERBURNING

COMBUSTION PERFORMANCE EVALUATION OF MAGNESIUM-HYDROCARBON SLURRY BLENDS IN A SIMULATED TAIL-PIPE BURNER. Leonard K. Tower and J. Robert Branstetter. May 15, 1951. 53p. diagrs., photos., tabs. (NACA RM E51C26)

EXPERIMENTAL INVESTIGATION OF EFFECT OF JET EXIT CONFIGURATION ON THRUST AND DRAG. Edmund E. Callaghan and Willard D. Coles. December 1951. 18p. diagrs., photos. (NACA RM E51J22)

EFFECT OF PARTICLE SIZE AND STABILIZING ADDITIVES ON THE COMBUSTION PROPERTIES OF MAGNESIUM SLURRY. Albert M. Lord and Vernida E. Evans. January 1953. 28p. diagrs., photos. (NACA RM E52K12)

EXPERIMENTAL INVESTIGATION OF PHYSICAL AND COMBUSTION PROPERTIES OF SEVERAL RESIDUAL FUEL OILS AND MAGNESIUM - FUEL-OIL SLURRIES IN A RAM-JET-TYPE COMBUSTOR. Preston N. Cook, Jr., Vernida E. Evans, and Erwin A. Lezberg. June 1953. 23p. diagrs., photos., tab. (NACA RM E53D30)

A METHOD OF MEASURING JET THRUST OF TURBOJET ENGINES IN FLIGHT INSTALLATIONS. Joseph N. Sivo and David B. Fenn. January 1954. 19p. diagrs., photo. (NACA RM E53J15)

PREPARATION AND HANDLING OF MAGNESIUM-HYDROCARBON SLURRIES FOR JET-ENGINE APPLICATIONS. Henry C. Barnett, A. M. Lord, and P. H. Wise. June 1955. 60p. diagrs., photos., tabs. (NACA RM E55D01)

EFFECT OF STANDING TRANSVERSE ACOUSTIC OSCILLATIONS ON FUEL-OXIDANT MIXING IN CYLINDRICAL COMBUSTION CHAMBERS. William R. Mickelsen. May 1957. (i), 49p. diagrs. (NACA TN 3983)

(3.4) Fuels

FACTORS IN SELECTING FUELS FOR GAS-TURBINE POWERED AIRCRAFT. Louis C. Gibbons. November 13, 1950. 85p. diagrs., photos., tabs. (NACA RM E50I18)

PREPARATION AND PHYSICAL PROPERTIES OF METAL SLURRY FUELS. James B. Gibbs and Preston N. Cook, Jr. March 1952. 36p. diagrs., photos., tabs. (NACA RM E52A23)

IGNITION DELAYS OF ALKYL THIOPHOSPHITES WITH WHITE AND RED FUMING NITRIC ACIDS WITHIN TEMPERATURE RANGE 80° TO -105° F. Riley O. Miller and Dezso J. Ladanyi. February 1953. 24p. diagrs., photo., tabs. (NACA RM E52K25)

BLOW-OUT VELOCITIES OF VARIOUS PETROLEUM, SLURRY, AND HYDRIDE FUELS IN A 1-7/8 INCH DIAMETER COMBUSTOR. Preston N. Cook, Jr., Albert M. Lord, and Samuel Kaye. April 1954. 20p. diagrs., tab. (NACA RM E54A28)

NACA RESEARCH ON SLURRY FUELS THROUGH 1954. Walter T. Olson and Roland Breitwieser. (Presented orally to Office of Naval Research (Pasadena) and NACA Subcommittee on Combustion in December 1954) April 1955. 30p. diagrs., photos. (NACA RM E55B14)

PREPARATION AND HANDLING OF MAGNESIUM-HYDROCARBON SLURRIES FOR JET-ENGINE APPLICATIONS. Henry C. Barnett, A. M. Lord, and P. H. Wise. June 1955. 60p. diagrs., photos., tabs. (NACA RM E55D01)

EFFECT OF SURFACE-ACTIVE ADDITIVES ON PHYSICAL PROPERTIES OF SLURRIES OF VAPOR-PROCESS MAGNESIUM. Murray L. Pinns. November 1955. 22p. diagrs., photos., tabs. (NACA RM E55H26)

PROPERTIES OF AIRCRAFT FUELS. Henry C. Barnett and Robert R. Hibbard. August 1956. 152p. diagrs., tabs. (NACA TN 3276. Supersedes RM E53A21; RM E53I16)

A RELATION BETWEEN BURNING VELOCITY AND QUENCHING DISTANCE. A. E. Potter, Jr., and A. L. Berlad. November 1956. 19p. diagrs., tabs. (NACA TN 3882)

EFFECT OF PLASTIC VISCOSITY AND YIELD VALUE ON SPRAY CHARACTERISTICS OF MAGNESIUM-SLURRY FUEL. George M. Prok. January 1957. 23p. diagrs., photo., tabs. (NACA RM E56J19a)

A GENERAL SYSTEM FOR CALCULATING BURNING RATES OF PARTICLES AND DROPS AND COMPARISON OF CALCULATED RATES FOR CARBON, BORON, MAGNESIUM, AND ISOOCTANE. Kenneth P. Coffin and Richard S. Brokaw. February 1957. 56p. diagrs., tabs. (NACA TN 3929)

(3.4.1) PREPARATION

PREPARATION AND PHYSICAL PROPERTIES OF METAL SLURRY FUELS. James B. Gibbs and Preston N. Cook, Jr. March 1952. 36p. diagrs., photos., tabs. (NACA RM E52A23)

STUDY OF THE PHYSICAL PROPERTIES OF PETROLATUM-STABILIZED MAGNESIUM-HYDROCARBON SLURRY FUELS. Murray L. Pinns and Irving A. Goodman. January 1954. 58p. diagrs., tabs. (NACA RM E53J16)

A PRELIMINARY STUDY OF THE PREPARATION OF SLURRY FUELS FROM VAPORIZED MAGNESIUM. Walter R. Witzke, George M. Prok, and Thomas J. Walsh. February 1954. 21p. diagrs., photos., tabs. (NACA RM E53K23)

THE EFFECT OF MAGNESIUM PARTICLES OF VARIOUS EQUIVALENT DIAMETERS ON SOME PHYSICAL PROPERTIES OF PETROLATUM-STABILIZED MAGNESIUM-HYDROCARBON SLURRIES. Joseph M. Lamberti. April 1954. 48p. diagrs., photos., tabs. (NACA RM E54A22)

STABILIZATION OF 50-PERCENT MAGNESIUM - JP-4 SLURRIES WITH SOME ALUMINUM SOAPS OF C_8 ACIDS. Robert M. Caves. May 1954. 48p. diagrs., tabs. (NACA RM E54C10)

PREPARATION AND PROPERTIES OF CONCENTRATED BORON-HYDROCARBON SLURRY FUELS. Irving A. Goodman and Virginia O. Fenn. August 1954. 35p. diagrs., photos., tabs. (NACA RM E54F18a)

EFFECT OF SURFACE-ACTIVE ADDITIVES ON PHYSICAL BEHAVIOR OF 50-PERCENT SLURRIES OF 1.5-MICRON MAGNESIUM IN n-DECANE. Murray L. Pinns. February 1955. 54p. diagrs., photo., tabs. (NACA RM E54K22a)

PREPARATION AND HANDLING OF MAGNESIUM-HYDROCARBON SLURRIES FOR JET-ENGINE APPLICATIONS. Henry C. Barnett, A. M. Lord, and P. H. Wise. June 1955. 60p. diagrs., photos., tabs. (NACA RM E55D01)

PREPARATION OF 50 PERCENT BORON-HYDROCARBON SLURRIES USING COMBINATIONS OF GLYCEROL SORBITAN LAURATE WITH VARIOUS THICKENERS. Irving A. Goodman and Virginia O. Fenn. July 1955. 30p. diagrs., tab. (NACA RM E55E17)

EFFECT OF TEMPERATURE ON VISCOSITY OF SLURRIES OF BORON AND MAGNESIUM IN JP-5 FUEL. Harold F. Hipsher. July 1955. 20p. diagrs., tabs. (NACA RM E55E19)

EFFECT OF SURFACE-ACTIVE ADDITIVES ON PHYSICAL PROPERTIES OF SLURRIES OF VAPOR-PROCESS MAGNESIUM. Murray L. Pinns. November 1955. 22p. diagrs., photos., tabs. (NACA RM E55H26)

(3.4.2) PHYSICAL AND CHEMICAL PROPERTIES

THEORETICAL PERFORMANCE OF DIBORANE AS A ROCKET FUEL. Vearl N. Huff, Clyde S. Calvert, and Virginia C. Erdmann. January 10, 1949. 31p. diagrs., tabs. (NACA RM E8I17a)

IGNITION-ENERGY REQUIREMENTS IN A SINGLE TUBULAR COMBUSTOR. Hampton H. Foster. March 27, 1951. 27p. diagrs., tab. (NACA RM E51A24)

THEORETICAL PERFORMANCE OF LITHIUM AND FLUORINE AS A ROCKET PROPELLANT. Sanford Gordon and Vearl N. Huff. May 10, 1951. 22p. diagrs., tabs. (NACA RM E51C01)

THEORETICAL PERFORMANCE OF LIQUID AMMONIA, HYDRAZINE, AND MIXTURE OF LIQUID AMMONIA AND HYDRAZINE AS FUELS WITH LIQUID OXYGEN BIFLUORIDE AS OXIDANT FOR ROCKET ENGINES. I - MIXTURE OF LIQUID AMMONIA AND HYDRAZINE. Vearl N. Huff and Sanford Gordon. February 1952. 24p. diagrs., tabs. (NACA RM E51L11)

PREPARATION AND PHYSICAL PROPERTIES OF METAL SLURRY FUELS. James B. Gibbs and Preston N. Cook, Jr. March 1952. 36p. diagrs., photos., tabs. (NACA RM E52A23)

AN EXPERIMENTAL INVESTIGATION OF THE COMBUSTION PROPERTIES OF A HYDROCARBON FUEL AND SEVERAL MAGNESIUM AND BORON SLURRIES. Albert M. Lord. April 1952. 30p. diagrs. (NACA RM E52B01)

EFFECT OF FUEL PROPERTIES ON CARBON DEPOSITION IN ATOMIZING AND PREVAPORIZING TURBOJET COMBUSTORS. Jerrold D. Wear and William P. Cook. June 1952. 21p. photos., diagrs., tabs. (NACA RM E52C24)

THEOREITCAL PERFORMANCE OF LIQUID AMMONIA, HYDRAZINE, AND MIXTURE OF LIQUID AMMONIA AND HYDRAZINE AS FUELS WITH LIQUID OXYGEN BIFLUORIDE AS OXIDANT FOR ROCKET ENGINES. III - LIQUID AMMONIA. Vearl N. Huff and Sanford Gordon. October 1952. 15p. diagrs., tabs. (NACA RM E52H14)

EFFECT OF FUEL ADDITIVES ON CARBON DEPOSITION IN A J33 SINGLE COMBUSTOR. I - THREE METALLIC-ORGANIC ADDITIVES. Edmund R. Jonash, Jerrold D. Wear, and William P. Cook. October 1952. 12p. diagrs., photos., tabs. (NACA RM E52H21)

PERFORMANCE OF PURE FUELS IN A SINGLE J33 COMBUSTOR. I - FIVE LIQUID HYDROCARBON FUELS. Jerrold D. Wear and Ralph T. Dittrich. November 1952. 43p. diagrs., tabs. (NACA RM E52J03)

EFFECT OF FUEL VOLATILITY CHARACTERISTICS ON IGNITION-ENERGY REQUIREMENTS IN A TURBOJET COMBUSTOR. Hampton H. Foster and David M. Straight. January 1953. 32p. diagrs., tab. (NACA RM E52J21)

EFFECT OF PARTICLE SIZE AND STABILIZING ADDITIVES ON THE COMBUSTION PROPERTIES OF MAGNESIUM SLURRY. Albert M. Lord and Vernida E. Evans. January 1953. 28p. diagrs., photos. (NACA RM E52K12)

IGNITION DELAYS OF SOME NONAROMATIC FUELS WITH LOW-FREEZING RED FUMING NITRIC ACID IN TEMPERATURE RANGE -40° TO -105° F. Riley O. Miller. January 1953. 17p. diagrs., tabs. (NACA RM E52K20)

PHOTOGRAPHIC STUDIES OF PREIGNITION ENVIRONMENT AND FLAME INITIATION IN TURBOJET-ENGINE COMBUSTORS. David M. Straight and J. Dean Gernon. February 1953. 40p. photos., diagrs. (NACA RM E52I11)

IGNITION DELAYS OF ALKYL THIOPHOSPHITES WITH WHITE AND RED FUMING NITRIC ACIDS WITHIN TEMPERATURE RANGE 80° TO -105° F. Riley O. Miller and Dezso J. Ladanyi. February 1953. 24p. diagrs., photo., tabs. (NACA RM E52K25)

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STUDY OF SOME DIELECTRIC PROPERTIES OF SUSPENSIONS OF MAGNESIUM PARTICLES IN MINERAL OIL. Aubrey P. Altshuller. February 1954. 42p. diagrs., photo., tabs. (NACA RM E53L09)

THE EFFECT OF MAGNESIUM PARTICLES OF VARIOUS EQUIVALENT DIAMETERS ON SOME PHYSICAL PROPERTIES OF PETROLATUM-STABILIZED MAGNESIUM-HYDROCARBON SLURRIES. Joseph M. Lamberti. April 1954. 48p. diagrs., photos., tabs. (NACA RM E54A22)

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EFFECT OF FUEL ADDITIVES ON CARBON DEPOSITION IN A J33 SINGLE COMBUSTOR. II - SEVEN COMMERCIAL ORGANO-METALLIC ADDITIVES. Vincent F. Hlavin and William P. Cook. November 1954. 12p. diagrs., photos., tabs. (NACA RM E54H23)

EFFECT OF SURFACE-ACTIVE ADDITIVES ON PHYSICAL BEHAVIOR OF 50-PERCENT SLURRIES OF 1.5-MICRON MAGNESIUM IN n-DECANE. Murray L. Pinns. February 1955. 54p. diagrs., photo., tabs. (NACA RM E54K22a)

PERFORMANCE OF PURE FUELS IN SINGLE J33 COMBUSTORS. II - HYDROCARBON AND NON-HYDROCARBON FUELS. Arthur L. Smith and Jerrold D. Wear. April 1955. 63p. diagrs., photos., tabs. (NACA RM E55B02)

PREPARATION AND HANDLING OF MAGNESIUM-HYDROCARBON SLURRIES FOR JET-ENGINE APPLICATIONS. Henry C. Barnett, A. M. Lord, and P. H. Wise. June 1955. 60p. diagrs., photos., tabs. (NACA RM E55D01)

CORRELATION OF TURBOJET COMBUSTOR CARBON FORMATION WITH SMOKE-VOLATILITY INDEX, SMOKE POINT, AND NACA K FACTOR. Edmund R. Jonash, Helmut F. Butze, and William P. Cook. June 1955. 28p. diagrs., photos., tabs. (NACA RM E55D28)

PREPARATION OF 50 PERCENT BORON-HYDROCARBON SLURRIES USING COMBINATIONS OF GLYCEROL SORBITAN LAURATE WITH VARIOUS THICKENERS. Irving A. Goodman and Virginia O. Fenn. July 1955. 30p. diagrs., tab. (NACA RM E55E17)

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A METHOD FOR DETERMINING THE COMPOSITION OF METHANOL - TRIMETHYL BORATE MIXTURES. Samuel Kaye and Frank Sordyl. November 1955. 11p. diagrs., tabs. (NACA RM E55H15)

EFFECT OF SURFACE-ACTIVE ADDITIVES ON PHYSICAL PROPERTIES OF SLURRIES OF VAPOR-PROCESS MAGNESIUM. Murray L. Pinns. November 1955. 22p. diagrs., photos., tabs. (NACA RM E55H26)

A THERMAL EQUATION FOR FLAME QUENCHING. A. E. Potter, Jr., and A. L. Berlad. 1956. ii, 7p. diagrs., tab. (NACA Rept. 1264. Supersedes TN 3398)

EFFECT OF FUEL ADDITIVES ON CARBON DEPOSITION IN A J33 SINGLE COMBUSTOR. IV - NINE OXYGEN-BEARING COMPOUNDS. Edmund R. Jonash, William P. Cook, and Jerrold D. Wear. February 1956. 12p. diagrs., photos., tabs. (NACA RM E55J31)

PERFORMANCE OF PURE FUELS IN A SINGLE J33 COMBUSTOR. III - FIVE HYDROCARBON GASEOUS FUELS AND ONE OXYGENATED-HYDROCARBON GASEOUS FUEL. Arthur L. Smith and Jerrold D. Wear. February 1956. 36p. diagrs., tabs. (NACA RM E55K04a)

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IGNITION DELAYS AND FLUID PROPERTIES OF SEVERAL FUELS AND NITRIC ACID OXIDANTS IN TEMPERATURE RANGE FROM 70° TO -105° F. Riley O. Miller. December 1956. 32p. diagrs., photos., tabs. (NACA TN 3884. Supersedes RM E51J11)

THEORETICAL ROCKET PERFORMANCE OF JP-4 FUEL WITH MIXTURES OF LIQUID OZONE AND FLUORINE. Vearl N. Huff and Sanford Gordon. January 1957. 22p. diagrs., tabs. (NACA RM E56K14)

THEORETICAL PERFORMANCE OF LIQUID HYDROGEN AND LIQUID FLUORINE AS A ROCKET PROPELLANT FOR A CHAMBER PRESSURE OF 600 POUNDS PER SQUARE INCH ABSOLUTE. Anthony Fortini and Vearl N. Huff. January 1957. 38p. diagrs., tabs. (NACA RM E56L10a)

PRESSURE LOSSES OF TITANIA AND MAGNESIUM SLURRIES IN PIPES AND PIPELINE TRANSITIONS. Ruth N. Weltmann and Thomas A. Keller. January 1957. 22p. diagrs., photo., tab. (NACA TN 3889)

A REVIEW OF THE PHYSICAL AND THERMODYNAMIC PROPERTIES OF BORIC OXIDE. Paul C. Setze. April 1957. 25p. diagrs., photo., tabs. (NACA RM E57B14)

(3.4.3) RELATION TO ENGINE PERFORMANCE

FACTORS IN SELECTING FUELS FOR GAS-TURBINE POWERED AIRCRAFT. Louis C. Gibbons. November 13, 1950. 85p. diagrs., photos., tabs. (NACA RM E50I18)

IGNITION-ENERGY REQUIREMENTS IN A SINGLE TUBULAR COMBUSTOR. Hampton H. Foster. March 27, 1951. 27p. diagrs., tab. (NACA RM E51A24)

PHOTOGRAPHIC STUDIES OF PREIGNITION ENVIRONMENT AND FLAME INITIATION IN TURBOJET-ENGINE COMBUSTORS. David M. Straight and J. Dean Gernon. February 1953. 40p. photos., diagrs. (NACA RM E52I11)

BLOW-OUT VELOCITIES OF VARIOUS PETROLEUM, SLURRY, AND HYDRIDE FUELS IN A 1-7/8 INCH DIAMETER COMBUSTOR. Preston N. Cook, Jr., Albert M. Lord, and Samuel Kaye. April 1954. 20p. diagrs., tab. (NACA RM E54A28)

BLOW-OUT VELOCITIES OF SEVERAL SLURRY AND LIQUID FUELS IN A 1-7/8 INCH DIAMETER COMBUSTOR. James F. Morris, Robert M. Caves, and Albert M. Lord. February 1955. 12p. diagrs., tab. (NACA RM E54L27a)

CORRELATION OF TURBOJET COMBUSTOR CARBON FORMATION WITH SMOKE-VOLATILITY INDEX, SMOKE POINT, AND NACA K FACTOR. Edmund R. Jonash, Helmut F. Butze, and William P. Cook. June 1955. 28p. diagrs., photos., tabs. (NACA RM E55D28)

(3.4.3.2) TURBINE ENGINES, RAM JETS, AND PULSE JETS

ALTITUDE-WIND-TUNNEL INVESTIGATION OF AN-F-58 FUEL IN EXPERIMENTAL VERSION OF J47 TURBOJET ENGINE. Carl L. Meyer. May 2, 1949. 16p. diagrs., tab. (NACA RM E8L13)

FACTORS IN SELECTING FUELS FOR GAS-TURBINE POWERED AIRCRAFT. Louis C. Gibbons. November 13, 1950. 85p. diagrs., photos., tabs. (NACA RM E50I18)

IGNITION-ENERGY REQUIREMENTS IN A SINGLE TUBULAR COMBUSTOR. Hampton H. Foster. March 27, 1951. 27p. diagrs., tab. (NACA RM E51A24)

COMBUSTION PERFORMANCE EVALUATION OF MAGNESIUM-HYDROCARBON SLURRY BLENDS IN A SIMULATED TAIL-PIPE BURNER. Leonard K. Tower and J. Robert Branstetter. May 15, 1951. 53p. diagrs., photos., tabs. (NACA RM E51C26)

STATUS OF COMBUSTION RESEARCH ON HIGH-ENERGY FUELS FOR RAM JETS. Walter T. Olson and Louis C. Gibbons. October 1951. 75p. diagrs., photos., tabs. (NACA RM E51D23)

PRELIMINARY RESULTS OF TURBOJET-ENGINE ALTITUDE-STARTING INVESTIGATION. H. D. Wilsted and J. C. Armstrong. November 1951. 25p. diagrs. (NACA RM E51H30)

AN EXPERIMENTAL INVESTIGATION OF THE COMBUSTION PROPERTIES OF A HYDROCARBON FUEL AND SEVERAL MAGNESIUM AND BORON SLURRIES. Albert M. Lord. April 1952. 30p. diagrs. (NACA RM E52B01)

EFFECT OF FUEL PROPERTIES ON CARBON DEPOSITION IN ATOMIZING AND PREVAPORIZING TURBOJET COMBUSTORS. Jerrold D. Wear and William P. Cook. June 1952. 21p. photos., diagrs., tabs. (NACA RM E52C24)

TEMPERATURE RESPONSE OF TURBINE-BLADE METAL COVERED WITH OXIDE COATINGS SUPPLIED BY FUEL ADDITIVES. Richard J. McCafferty and Helmut F. Butze. August 1952. 20p. diagrs., photos., tab. (NACA RM E52G07)

EFFECT OF FUEL ADDITIVES ON CARBON DEPOSITION IN A J33 SINGLE COMBUSTOR. I - THREE METALLIC-ORGANIC ADDITIVES. Edmund R. Jonash, Jerrold D. Wear, and William P. Cook. October 1952. 12p. diagrs., photos., tabs. (NACA RM E52H21)

PERFORMANCE OF PURE FUELS IN A SINGLE J33 COMBUSTOR. I - FIVE LIQUID HYDROCARBON FUELS. Jerrold D. Wear and Ralph T. Dittrich. November 1952. 43p. diagrs., tabs. (NACA RM E52J03)

EFFECT OF FUEL VOLATILITY CHARACTERISTICS ON IGNITION-ENERGY REQUIREMENTS IN A TURBOJET COMBUSTOR. Hampton H. Foster and David M. Straight. January 1953. 32p. diagrs., tab. (NACA RM E52J21)

PHOTOGRAPHIC STUDIES OF PREIGNITION ENVIRONMENT AND FLAME INITIATION IN TURBOJET-ENGINE COMBUSTORS. David M. Straight and J. Dean Gernon. February 1953. 40p. photos., diagrs. (NACA RM E52I11)

EVALUATION OF ETHYL ETHER AS AN IGNITION AID FOR TURBOJET ENGINE FUELS. Edmund R. Jonash and Hampton H. Foster. October 1953. 11p. diagrs., tab. (NACA RM E53I02)

STUDY OF THE PHYSICAL PROPERTIES OF PETROLATUM-STABILIZED MAGNESIUM-HYDROCARBON SLURRY FUELS. Murray L. Pinns and Irving A. Goodman. January 1954. 58p. diagrs., tabs. (NACA RM E53J16)

A PRELIMINARY STUDY OF THE PREPARATION OF SLURRY FUELS FROM VAPORIZED MAGNESIUM. Walter R. Witzke, George M. Prok, and Thomas J. Walsh. February 1954. 21p. diagrs., photos., tabs. (NACA RM E53K23)

THE EFFECT OF MAGNESIUM PARTICLES OF VARIOUS EQUIVALENT DIAMETERS ON SOME PHYSICAL PROPERTIES OF PETROLATUM-STABILIZED MAGNESIUM-HYDROCARBON SLURRIES. Joseph M. Lamberti. April 1954. 48p. diagrs., photos., tabs. (NACA RM E54A22)

BLOW-OUT VELOCITIES OF VARIOUS PETROLEUM, SLURRY, AND HYDRIDE FUELS IN A 1-7/8 INCH DIAMETER COMBUSTOR. Preston N. Cook, Jr., Albert M. Lord, and Samuel Kaye. April 1954. 20p. diagrs., tab. (NACA RM E54A28)

STABILIZATION OF 50-PERCENT MAGNESIUM - JP-4 SLURRIES WITH SOME ALUMINUM SOAPS OF C_8 ACIDS. Robert M. Caves. May 1954. 48p. diagrs., tabs. (NACA RM E54C10)

PERFORMANCE OF SLURRIES OF 50 PERCENT BORON IN JP-4 FUEL IN 5-INCH RAM-JET BURNER. Thaine W. Reynolds and Donald P. Haas. June 1954. 31p. diagrs., photos., tabs. (NACA RM E54D07)

EFFECT OF FUEL ADDITIVES ON CARBON DEPOSITION IN A J33 SINGLE COMBUSTOR. II - SEVEN COMMERCIAL ORGANO-METALLIC ADDITIVES. Vincent F. Hlavin and William P. Cook. November 1954. 12p. diagrs., photos., tabs. (NACA RM E54H23)

EFFECT OF SURFACE-ACTIVE ADDITIVES ON PHYSICAL BEHAVIOR OF 50-PERCENT SLURRIES OF 1.5-MICRON MAGNESIUM IN n-DECANE. Murray L. Pinns. February 1955. 54p. diagrs., photo., tabs. (NACA RM E54K22a)

BLOW-OUT VELOCITIES OF SEVERAL SLURRY AND LIQUID FUELS IN A 1-7/8 INCH DIAMETER COMBUSTOR. James F. Morris, Robert M. Caves, and Albert M. Lord. February 1955. 12p. diagrs., tab. (NACA RM E54L27a)

PERFORMANCE OF PURE FUELS IN SINGLE J33 COMBUSTORS. II - HYDROCARBON AND NON-HYDROCARBON FUELS. Arthur L. Smith and Jerrold D. Wear. April 1955. 63p. diagrs., photos., tabs. (NACA RM E55B02)

CORRELATION OF TURBOJET COMBUSTOR CARBON FORMATION WITH SMOKE-VOLATILITY INDEX, SMOKE POINT, AND NACA K FACTOR. Edmund R. Jonash, Helmut F. Butze, and William P. Cook. June 1955. 28p. diagrs., photos., tabs. (NACA RM E55D28)

EFFECT OF TEMPERATURE ON VISCOSITY OF SLURRIES OF BORON AND MAGNESIUM IN JP-5 FUEL. Harold F. Hipsher. July 1955. 20p. diagrs., tabs. (NACA RM E55E19)

EFFECT OF FUEL ADDITIVES ON CARBON DEPOSITION IN A J33 SINGLE COMBUSTOR. III - FIVE ORGANO-METALLIC ADDITIVES. Edmund R. Jonash and William P. Cook. September 1955. 11p. diagrs., photos., tabs. (NACA RM E55F30a)

EFFECT OF SURFACE-ACTIVE ADDITIVES ON PHYSICAL PROPERTIES OF SLURRIES OF VAPOR-PROCESS MAGNESIUM. Murray L. Pinns. November 1955. 22p. diagrs., photos., tabs. (NACA RM E55H26)

EFFECT OF FUEL ADDITIVES ON CARBON DEPOSITION IN A J33 SINGLE COMBUSTOR. IV - NINE OXYGEN-BEARING COMPOUNDS. Edmund R. Jonash, William P. Cook, and Jerrold D. Wear. February 1956. 12p. diagrs., photos., tabs. (NACA RM E55J31)

PERFORMANCE OF PURE FUELS IN A SINGLE J33 COMBUSTOR. III - FIVE HYDROCARBON GASEOUS FUELS AND ONE OXYGENATED-HYDROCARBON GASEOUS FUEL. Arthur L. Smith and Jerrold D. Wear. February 1956. 36p. diagrs., tabs. (NACA RM E55K04a)

PROPERTIES OF AIRCRAFT FUELS. Henry C. Barnett and Robert R. Hibbard. August 1956. 152p. diagrs., tabs. (NACA TN 3276. Supersedes RM E53A21; RM E53I16)

EFFECT OF PRESSURE ON THE SPONTANEOUS IGNITION TEMPERATURE OF LIQUID FUELS. Cleveland O'Neal, Jr. October 1956. 21p. diagrs., tabs. (NACA TN 3829)

A REVIEW OF THE PHYSICAL AND THERMODYNAMIC PROPERTIES OF BORIC OXIDE. Paul C. Setze. April 1957. 25p. diagrs., photo., tabs. (NACA RM E57B14)

(3.4.3.3) ROCKETS (INCLUDES FUEL AND OXIDANT)

THEORETICAL PERFORMANCE OF DIBORANE AS A ROCKET FUEL. Vearl N. Huff, Clyde S. Calvert, and Virginia C. Erdmann. January 10, 1949. 31p. diagrs., tabs. (NACA RM E8I17a)

EXPERIMENTAL INVESTIGATION OF LIQUID DIBORANE - LIQUID OXYGEN PROPELLANT COMBINATION IN 100-POUND-THRUST ROCKET ENGINE. William H. Rowe, Paul M. Ordin, and John M. Diehl. May 9, 1949. 25p. diagrs., photos., tab. (NACA RM E9C11)

EXPERIMENTAL PERFORMANCE OF CHLORINE TRIFLUORIDE - HYDRAZINE PROPELLANT COMBINATION IN 100-POUND-THRUST ROCKET ENGINE. Paul M. Ordin and Riley O. Miller. August 15, 1949. 22p. diagrs., photos. (NACA RM E9F01)

EFFECT OF COMBUSTION-CHAMBER PRESSURE AND NOZZLE EXPANSION RATIO ON THEORETICAL PERFORMANCE OF SEVERAL ROCKET PROPELLANT SYSTEMS. Virginia E. Morrell. May 25, 1950. 15p. diagrs., tabs. (NACA RM E50C30)

THEORETICAL PERFORMANCE OF LITHIUM AND FLUORINE AS A ROCKET PROPELLANT. Sanford Gordon and Vearl N. Huff. May 10, 1951. 22p. diagrs., tabs. (NACA RM E51C01)

THEORETICAL PERFORMANCE OF LIQUID AMMONIA, HYDRAZINE, AND MIXTURE OF LIQUID AMMONIA AND HYDRAZINE AS FUELS WITH LIQUID OXYGEN BIFLUORIDE AS OXIDANT FOR ROCKET ENGINES. I - MIXTURE OF LIQUID AMMONIA AND HYDRAZINE. Vearl N. Huff and Sanford Gordon. February 1952. 24p. diagrs., tabs. (NACA RM E51L11)

THEORETICAL PERFORMANCE OF LIQUID AMMONIA, HYDRAZINE, AND MIXTURE OF LIQUID AMMONIA AND HYDRAZINE AS FUELS WITH LIQUID OXYGEN BIFLUORIDE AS OXIDANT FOR ROCKET ENGINES. II - HYDRAZINE. Vearl N. Huff and Sanford Gordon. September 1952. 20p. diagrs., tabs. (NACA RM E52G09)

THEOREITCAL PERFORMANCE OF LIQUID AMMONIA, HYDRAZINE, AND MIXTURE OF LIQUID AMMONIA AND HYDRAZINE AS FUELS WITH LIQUID OXYGEN BIFLUORIDE AS OXIDANT FOR ROCKET ENGINES. III - LIQUID AMMONIA. Vearl N. Huff and Sanford Gordon. October 1952. 15p. diagrs., tabs. (NACA RM E52H14)

IGNITION DELAYS OF SOME NONAROMATIC FUELS WITH LOW-FREEZING RED FUMING NITRIC ACID IN TEMPERATURE RANGE -40° TO -105° F. Riley O. Miller. January 1953. 17p. diagrs., tabs. (NACA RM E52K20)

IGNITION DELAYS OF ALKYL THIOPHOSPHITES WITH WHITE AND RED FUMING NITRIC ACIDS WITHIN TEMPERATURE RANGE 80° TO -105° F. Riley O. Miller and Dezso J. Ladanyi. February 1953. 24p. diagrs., photo., tabs. (NACA RM E52K25)

THEORETICAL PERFORMANCE OF LIQUID HYDROGEN AND LIQUID FLUORINE AS A ROCKET PROPELLANT. Sanford Gordon and Vearl N. Huff. February 1953. 28p. diagrs., tabs. (NACA RM E52L11)

THEORETICAL PERFORMANCE OF LIQUID AMMONIA AND LIQUID FLUORINE AS A ROCKET PROPELLANT. Sanford Gordon and Vearl N. Huff. March 1953. 25p. diagrs., tabs. (NACA RM E53A26)

THEORETICAL PERFORMANCE OF LIQUID HYDRAZINE AND LIQUID FLUORINE AS A ROCKET PROPELLANT. Sanford Gordon and Vearl N. Huff. July 1953. 83p. diagrs., tabs. (NACA RM E53E12)

THEORETICAL PERFORMANCE OF MIXTURES OF LIQUID AMMONIA AND HYDRAZINE AS FUEL WITH LIQUID FLUORINE AS OXIDANT FOR ROCKET ENGINES. Sanford Gordon and Vearl N. Huff. July 1953. 43p. diagrs., tabs. (NACA RM E53F08)

THEORETICAL MAXIMUM PERFORMANCE OF LIQUID FLUORINE - LIQUID OXYGEN MIXTURES WITH JP-4 FUEL AS ROCKET PROPELLANTS. Sanford Gordon and Roger L. Wilkins. October 1954. 18p. diagrs., tabs. (NACA RM E54H09)

INJECTION PRINCIPLES FROM COMBUSTION STUDIES IN A 200-POUND-THRUST ROCKET ENGINE USING LIQUID OXYGEN AND HEPTANE. M. F. Heidmann and C. M. Auble. June 1955. 55p. diagrs., photos., tabs. (NACA RM E55C22)

THEORETICAL PERFORMANCE OF JP-4 FUEL AND LIQUID OXYGEN AS A ROCKET PROPELLANT. II - EQUILIBRIUM COMPOSITION. Vearl N. Huff, Anthony Fortini, and Sanford Gordon. September 1956. 47p. diagrs., tabs. (NACA RM E56D23)

IGNITION DELAYS AND FLUID PROPERTIES OF SEVERAL FUELS AND NITRIC ACID OXIDANTS IN TEMPERATURE RANGE FROM 70° TO -105° F. Riley O. Miller. December 1956. 32p. diagrs., photos., tabs. (NACA TN 3884. Supersedes RM E51J11)

THEORETICAL ROCKET PERFORMANCE OF JP-4 FUEL WITH MIXTURES OF LIQUID OZONE AND FLUORINE. Vearl N. Huff and Sanford Gordon. January 1957. 22p. diagrs., tabs. (NACA RM E56K14)

MATERIAL COMPATIBILITY WITH GASEOUS FLUORINE. Harold G. Price, Jr., and Howard W. Douglass. January 1957. 5p. tab. (NACA RM E56K21)

THEORETICAL PERFORMANCE OF LIQUID HYDROGEN AND LIQUID FLUORINE AS A ROCKET PROPELLANT FOR A CHAMBER PRESSURE OF 600 POUNDS PER SQUARE INCH ABSOLUTE. Anthony Fortini and Vearl N. Huff. January 1957. 38p. diagrs., tabs. (NACA RM E56L10a)

A STUDY OF SPRAYS FORMED BY TWO IMPINGING JETS. Marcus F. Heidmann, Richard J. Priem, and Jack C. Humphrey. March 1957. 32p. diagrs., photos., tab. (NACA TN 3835. Supersedes TN 2349)

HYDROGEN-OXYGEN EXPLOSIONS IN EXHAUST DUCTING. Paul M. Ordin. April 1957. 31p. diagrs., photos., tab. (NACA TN 3935)

(3.5)
Combustion and Combusters

APPLICATION OF STREAM-FILAMENT TECHNIQUES TO DESIGN OF DIFFUSER BETWEEN COMPRESSOR AND COMBUSTOR IN A GAS-TURBINE ENGINE. Norbert O. Stockman. August 1955. 15p. diagrs. (NACA RM E55F06)

(3.5.1)
GENERAL COMBUSTION RESEARCH

IGNITION-ENERGY REQUIREMENTS IN A SINGLE TUBULAR COMBUSTOR. Hampton H. Foster. March 27, 1951. 27p. diagrs., tab. (NACA RM E51A24)

EFFECT OF FUEL VOLATILITY CHARACTERISTICS ON IGNITION-ENERGY REQUIREMENTS IN A TURBOJET COMBUSTOR. Hampton H. Foster and David M. Straight. January 1953. 32p. diagrs., tab. (NACA RM E52J21)

EFFECT OF PARTICLE SIZE AND STABILIZING ADDITIVES ON THE COMBUSTION PROPERTIES OF MAGNESIUM SLURRY. Albert M. Lord and Vernida E. Evans. January 1953. 28p. diagrs., photos. (NACA RM E52K12)

PHOTOGRAPHIC STUDIES OF PREIGNITION ENVIRONMENT AND FLAME INITIATION IN TURBOJET-ENGINE COMBUSTORS. David M. Straight and J. Dean Gernon. February 1953. 40p. photos., diagrs. (NACA RM E52I11)

EXPERIMENTAL INVESTIGATION OF PHYSICAL AND COMBUSTION PROPERTIES OF SEVERAL RESIDUAL FUEL OILS AND MAGNESIUM - FUEL-OIL SLURRIES IN A RAM-JET-TYPE COMBUSTOR. Preston N. Cook, Jr., Vernida E. Evans, and Erwin A. Lezberg. June 1953. 23p. diagrs., photos., tab. (NACA RM E53D30)

BLOW-OUT VELOCITIES OF VARIOUS PETROLEUM, SLURRY, AND HYDRIDE FUELS IN A 1-7/8 INCH DIAMETER COMBUSTOR. Preston N. Cook, Jr., Albert M. Lord, and Samuel Kaye. April 1954. 20p. diagrs., tab. (NACA RM E54A28)

STABILIZATION OF 50-PERCENT MAGNESIUM - JP-4 SLURRIES WITH SOME ALUMINUM SOAPS OF C_8 ACIDS. Robert M. Caves. May 1954. 48p. diagrs., tabs. (NACA RM E54C10)

PERFORMANCE OF SLURRIES OF 50 PERCENT BORON IN JP-4 FUEL IN 5-INCH RAM-JET BURNER. Thaine W. Reynolds and Donald P. Haas. June 1954. 31p. diagrs., photos., tabs. (NACA RM E54D07)

BLOW-OUT VELOCITIES OF SEVERAL SLURRY AND LIQUID FUELS IN A 1-7/8 INCH DIAMETER COMBUSTOR. James F. Morris, Robert M. Caves, and Albert M. Lord. February 1955. 12p. diagrs., tab. (NACA RM E54L27a)

A THERMAL EQUATION FOR FLAME QUENCHING. A. E. Potter, Jr., and A. L. Berlad. 1956. ii, 7p. diagrs., tab. (NACA Rept. 1264. Supersedes TN 3398)

PROPAGATION OF A FREE FLAME IN A TURBULENT GAS STREAM. William R. Mickelsen and Norman E. Ernstein. 1956. ii, 26p. diagrs., photos., tabs. (NACA Rept. 1286. Supersedes TN 3456)

AERODYNAMIC MIXING DOWNSTREAM FROM LINE SOURCE OF HEAT IN HIGH-INTENSITY SOUND FIELD. William R. Mickelsen and Lionel V. Baldwin. August 1956. (ii), 75p. diagrs., photos. (NACA TN 3760)

MECHANISM OF GENERATION OF PRESSURE WAVES AT FLAME FRONTS. Boa-Teh Chu, Johns Hopkins University. October 1956. 20p. diagrs. (NACA TN 3683)

EFFECT OF PRESSURE ON THE SPONTANEOUS IGNITION TEMPERATURE OF LIQUID FUELS. Cleveland O'Neal, Jr. October 1956. 21p. diagrs., tabs. (NACA TN 3829)

STABILITY LIMITS AND BURNING VELOCITIES OF LAMINAR HYDROGEN-AIR FLAMES AT REDUCED PRESSURE. Burton Fine. November 1956. 29p. diagrs., tab. (NACA TN 3833)

A RELATION BETWEEN BURNING VELOCITY AND QUENCHING DISTANCE. A. E. Potter, Jr., and A. L. Berlad. November 1956. 19p. diagrs., tabs. (NACA TN 3882)

IGNITION DELAYS AND FLUID PROPERTIES OF SEVERAL FUELS AND NITRIC ACID OXIDANTS IN TEMPERATURE RANGE FROM 70° TO -105° F. Riley O. Miller. December 1956. 32p. diagrs., photos., tabs. (NACA TN 3884. Supersedes RM E51J11)

THEORY AND DESIGN OF A PNEUMATIC TEMPERATURE PROBE AND EXPERIMENTAL RESULTS OBTAINED IN A HIGH-TEMPERATURE GAS STREAM. Frederick S. Simmons and George E. Glawe. January 1957. 41p. diagrs., photo. (NACA TN 3893)

A GENERAL SYSTEM FOR CALCULATING BURNING RATES OF PARTICLES AND DROPS AND COMPARISON OF CALCULATED RATES FOR CARBON, BORON, MAGNESIUM, AND ISOOCTANE. Kenneth P. Coffin and Richard S. Brokaw. February 1957. 56p. diagrs., tabs. (NACA TN 3929)

EFFECT OF STANDING TRANSVERSE ACOUSTIC OSCILLATIONS ON FUEL-OXIDANT MIXING IN CYLINDRICAL COMBUSTION CHAMBERS. William R. Mickelsen. May 1957. (i), 49p. diagrs. (NACA TN 3983)

(3. 5. 1. 1) LAMINAR-FLOW COMBUSTION

STABILITY LIMITS AND BURNING VELOCITIES OF LAMINAR HYDROGEN-AIR FLAMES AT REDUCED PRESSURE. Burton Fine. November 1956. 29p. diagrs., tab. (NACA TN 3833)

A RELATION BETWEEN BURNING VELOCITY AND QUENCHING DISTANCE. A. E. Potter, Jr., and A. L. Berlad. November 1956. 19p. diagrs., tabs. (NACA TN 3882)

A GENERAL SYSTEM FOR CALCULATING BURNING RATES OF PARTICLES AND DROPS AND COMPARISON OF CALCULATED RATES FOR CARBON, BORON, MAGNESIUM, AND ISOOCTANE. Kenneth P. Coffin and Richard S. Brokaw. February 1957. 56p. diagrs., tabs. (NACA TN 3929)

FURTHER EXPERIMENTS ON THE STABILITY OF LAMINAR AND TURBULENT HYDROGEN-AIR FLAMES AT REDUCED PRESSURES. Burton Fine. April 1957. 31p. diagrs., tabs. (NACA TN 3977)

(3. 5. 1. 2) TURBULENT-FLOW COMBUSTION

INTERACTION OF A FREE FLAME FRONT WITH A TURBULENCE FIELD. Maurice Tucker. 1956. ii, 19p. diagrs., tabs. (NACA Rept. 1277. Supersedes TN 3407)

PROPAGATION OF A FREE FLAME IN A TURBULENT GAS STREAM. William R. Mickelsen and Norman E. Ernstein. 1956. ii, 26p. diagrs., photos., tabs. (NACA Rept. 1286. Supersedes TN 3456)

SOME EFFECTS OF SMALL-SCALE FLOW DISTURBANCE ON NOZZLE-BURNER FLAMES. Edgar L. Wong. September 1956. 19p. diagrs., photos., tabs. (NACA TN 3765)

GROWTH OF DISTURBANCES IN A FLAME-GENERATED SHEAR REGION. Perry L. Blackshear, Jr. November 1956. iv, 148p. diagrs., photos., tabs. (NACA TN 3830)

FURTHER EXPERIMENTS ON THE STABILITY OF LAMINAR AND TURBULENT HYDROGEN-AIR FLAMES AT REDUCED PRESSURES. Burton Fine. April 1957. 31p. diagrs., tabs. (NACA TN 3977)

(3. 5. 1. 3) DETONATION

HYDROGEN-OXYGEN EXPLOSIONS IN EXHAUST DUCTING. Paul M. Ordin. April 1957. 31p. diagrs., photos., tab. (NACA TN 3935)

(3. 5. 1. 4) EFFECTS OF FUEL ATOMIZATION

ALTITUDE OPERATION OF GAS-TURBINE ENGINE WITH VARIABLE-AREA FUEL-NOZZLE SYSTEM. H. Gold and S. Rosenzweig. April 2, 1951. 41p. diagrs., photos. (NACA RM E51A04)

AN EXPERIMENTAL INVESTIGATION OF THE COMBUSTION PROPERTIES OF A HYDROCARBON FUEL AND SEVERAL MAGNESIUM AND BORON SLURRIES. Albert M. Lord. April 1952. 30p. diagrs. (NACA RM E52B01)

PHOTOGRAPHIC STUDIES OF PREIGNITION ENVIRONMENT AND FLAME INITIATION IN TURBOJET-ENGINE COMBUSTORS. David M. Straight and J. Dean Gernon. February 1953. 40p. photos., diagrs. (NACA RM E52I11)

INJECTION PRINCIPLES FROM COMBUSTION STUDIES IN A 200-POUND-THRUST ROCKET ENGINE USING LIQUID OXYGEN AND HEPTANE. M. F. Heidmann and C. M. Auble. June 1955. 55p. diagrs., photos., tabs. (NACA RM E55C22)

EFFECT OF PLASTIC VISCOSITY AND YIELD VALUE ON SPRAY CHARACTERISTICS OF MAGNESIUM-SLURRY FUEL. George M. Prok. January 1957. 23p. diagrs., photo., tabs. (NACA RM E56J19a)

A STUDY OF SPRAYS FORMED BY TWO IMPINGING JETS. Marcus F. Heidmann, Richard J. Priem, and Jack C. Humphrey. March 1957. 32p. diagrs., photos., tab. (NACA TN 3835. Supersedes TN 2349)

(3. 5. 1. 5)
REACTION MECHANISMS

AN EXPERIMENTAL INVESTIGATION OF THE COMBUSTION PROPERTIES OF A HYDROCARBON FUEL AND SEVERAL MAGNESIUM AND BORON SLURRIES. Albert M. Lord. April 1952. 30p. diagrs. (NACA RM E52B01)

PERFORMANCE OF PURE FUELS IN A SINGLE J33 COMBUSTOR. I - FIVE LIQUID HYDROCARBON FUELS. Jerrold D. Wear and Ralph T. Dittrich. November 1952. 43p. diagrs., tabs. (NACA RM E52J03)

PERFORMANCE OF PURE FUELS IN SINGLE J33 COMBUSTORS. II - HYDROCARBON AND NON-HYDROCARBON FUELS. Arthur L. Smith and Jerrold D. Wear. April 1955. 63p. diagrs., photos., tabs. (NACA RM E55B02)

A THERMAL EQUATION FOR FLAME QUENCHING. A. E. Potter, Jr., and A. L. Berlad. 1956. ii, 7p. diagrs., tab. (NACA Rept. 1264. Supersedes TN 3398)

PERFORMANCE OF PURE FUELS IN A SINGLE J33 COMBUSTOR. III - FIVE HYDROCARBON GASEOUS FUELS AND ONE OXYGENATED-HYDROCARBON GASEOUS FUEL. Arthur L. Smith and Jerrold D. Wear. February 1956. 36p. diagrs., tabs. (NACA RM E55K04a)

EFFECT OF PHOSPHATE COATINGS ON TEMPERATURE OF METAL PARTS EXPOSED TO FLAME ENVIRONMENTS. George C. Fryburg, Norman H. Katz, and Sidney L. Simon. July 1956. 20p. diagrs., photo., tabs. (NACA TN 3279)

A RELATION BETWEEN BURNING VELOCITY AND QUENCHING DISTANCE. A. E. Potter, Jr., and A. L. Berlad. November 1956. 19p. diagrs., tabs. (NACA TN 3882)

(3. 5. 1. 6)
IGNITION OF GASES

PRELIMINARY RESULTS OF TURBOJET-ENGINE ALTITUDE-STARTING INVESTIGATION. H. D. Wilsted and J. C. Armstrong. November 1951. 25p. diagrs. (NACA RM E51H30)

EFFECT OF PRESSURE ON THE SPONTANEOUS IGNITION TEMPERATURE OF LIQUID FUELS. Cleveland O'Neal, Jr. October 1956. 21p. diagrs., tabs. (NACA TN 3829)

EFFECT OF CONCENTRATION ON IGNITION DELAYS FOR VARIOUS FUEL-OXYGEN-NITROGEN MIXTURES AT ELEVATED TEMPERATURES. E. Anagnostou, R. S. Brokaw, and J. N. Butler. December 1956. 34p. diagrs. (NACA TN 3887)

HYDROGEN-OXYGEN EXPLOSIONS IN EXHAUST DUCTING. Paul M. Ordin. April 1957. 31p. diagrs., photos., tab. (NACA TN 3935)

(3.5.2)
EFFECT OF ENGINE OPERATING CONDITIONS AND COMBUSTION CHAMBER GEOMETRY

MAGNESIUM-SLURRY COMBUSTION PERFORMANCE IN 6.5-INCH-DIAMETER RAM-JET ENGINE MOUNTED IN CONNECTED-PIPE FACILITY. J. Robert Branstetter, James B. Gibbs, and Warner B. Kaufman. August 1953. 63p. diagrs., photos., tabs. (NACA RM E53E27)

STARTING CHARACTERISTICS AND COMBUSTION PERFORMANCE OF MAGNESIUM SLURRY IN 6.5-INCH-DIAMETER RAM-JET ENGINE MOUNTED IN CONNECTED-PIPE FACILITY. James B. Gibbs, January 1954. 25p. diagrs., tabs. (NACA RM E53K05)

PERFORMANCE OF SLURRIES OF 50 PERCENT BORON IN JP-4 FUEL IN 5-INCH RAM-JET BURNER. Thaine W. Reynolds and Donald P. Haas. June 1954. 31p. diagrs., photos., tabs. (NACA RM E54D07)

AN EXPERIMENTAL INVESTIGATION OF A FLAT RAM-JET ENGINE ON A HELICOPTER ROTOR. Robert D. Powell, Jr., and James P. Shivers. January 1956. 27p. diagrs., photo. (NACA RM L55F28)

THE EFFECT OF FORWARD-FLIGHT SPEED ON THE PROPULSIVE CHARACTERISTICS OF A PULSE-JET ENGINE MOUNTED ON A HELICOPTER ROTOR. Robert D. Powell, Jr. January 1957. 23p. diagrs., photos. (NACA TN 3855)

EFFECT OF STANDING TRANSVERSE ACOUSTIC OSCILLATIONS ON FUEL-OXIDANT MIXING IN CYLINDRICAL COMBUSTION CHAMBERS. William R. Mickelsen. May 1957. (i), 49p. diagrs. (NACA TN 3983)

(3. 5. 2. 2)
TURBINE ENGINES

FACTORS IN SELECTING FUELS FOR GAS-TURBINE POWERED AIRCRAFT. Louis C. Gibbons. November 13, 1950. 85p. diagrs., photos., tabs. (NACA RM E50I18)

IGNITION-ENERGY REQUIREMENTS IN A SINGLE TUBULAR COMBUSTOR. Hampton H. Foster. March 27, 1951. 27p. diagrs., tab. (NACA RM E51A24)

PRELIMINARY RESULTS OF TURBOJET-ENGINE ALTITUDE-STARTING INVESTIGATION. H. D. Wilsted and J. C. Armstrong. November 1951. 25p. diagrs. (NACA RM E51H30)

EFFECT OF FUEL PROPERTIES ON CARBON DEPOSITION IN ATOMIZING AND PREVAPORIZING TURBOJET COMBUSTORS. Jerrold D. Wear and William P. Cook. June 1952. 21p. photos., diagrs., tabs. (NACA RM E52C24)

TEMPERATURE RESPONSE OF TURBINE-BLADE METAL COVERED WITH OXIDE COATINGS SUPPLIED BY FUEL ADDITIVES. Richard J. McCafferty and Helmut F. Butze. August 1952. 20p. diagrs., photos., tab. (NACA RM E52G07)

EFFECT OF FUEL ADDITIVES ON CARBON DEPOSITION IN A J33 SINGLE COMBUSTOR. I - THREE METALLIC-ORGANIC ADDITIVES. Edmund R. Jonash, Jerrold D. Wear, and William P. Cook. October 1952. 12p. diagrs., photos., tabs. (NACA RM E52H21)

PERFORMANCE OF PURE FUELS IN A SINGLE J33 COMBUSTOR. I - FIVE LIQUID HYDROCARBON FUELS. Jerrold D. Wear and Ralph T. Dittrich. November 1952. 43p. diagrs., tabs. (NACA RM E52J03)

EFFECT OF FUEL VOLATILITY CHARACTERISTICS ON IGNITION-ENERGY REQUIREMENTS IN A TURBOJET COMBUSTOR. Hampton H. Foster and David M. Straight. January 1953. 32p. diagrs., tab. (NACA RM E52J21)

PHOTOGRAPHIC STUDIES OF PREIGNITION ENVIRONMENT AND FLAME INITIATION IN TURBOJET-ENGINE COMBUSTORS. David M. Straight and J. Dean Gernon. February 1953. 40p. photos., diagrs. (NACA RM E52I11)

METHOD FOR ESTIMATING COMBUSTION EFFICIENCY AT ALTITUDE FLIGHT CONDITIONS FROM COMBUSTOR TESTS AT LOW PRESSURES. Walter T. Olson, J. Howard Childs, and Wilfred E. Scull. August 1953. 15p. diagrs. (NACA RM E53F17)

EFFECT OF FUEL ADDITIVES ON CARBON DEPOSITION IN A J33 SINGLE COMBUSTOR. II - SEVEN COMMERCIAL ORGANO-METALLIC ADDITIVES. Vincent F. Hlavin and William P. Cook. November 1954. 12p. diagrs., photos., tabs. (NACA RM E54H23)

PERFORMANCE OF PURE FUELS IN SINGLE J33 COMBUSTORS. II - HYDROCARBON AND NON-HYDROCARBON FUELS. Arthur L. Smith and Jerrold D. Wear. April 1955. 63p. diagrs., photos., tabs. (NACA RM E55B02)

APPLICATION OF STREAM-FILAMENT TECHNIQUES TO DESIGN OF DIFFUSER BETWEEN COMPRESSOR AND COMBUSTOR IN A GAS-TURBINE ENGINE. Norbert O. Stockman. August 1955. 15p. diagrs. (NACA RM E55F06)

EFFECT OF FUEL ADDITIVES ON CARBON DEPOSITION IN A J33 SINGLE COMBUSTOR. III - FIVE ORGANO-METALLIC ADDITIVES. Edmund R. Jonash and William P. Cook. September 1955. 11p. diagrs., photos., tabs. (NACA RM E55F30a)

EFFECT OF FUEL ADDITIVES ON CARBON DEPOSITION IN A J33 SINGLE COMBUSTOR. IV - NINE OXYGEN-BEARING COMPOUNDS. Edmund R. Jonash, William P. Cook, and Jerrold D. Wear. February 1956. 12p. diagrs., photos., tabs. (NACA RM E55J31)

PERFORMANCE OF PURE FUELS IN A SINGLE J33 COMBUSTOR. III - FIVE HYDROCARBON GASEOUS FUELS AND ONE OXYGENATED-HYDROCARBON GASEOUS FUEL. Arthur L. Smith and Jerrold D. Wear. February 1956. 36p. diagrs., tabs. (NACA RM E55K04a)

(3. 5. 2. 3)
RAM-JET ENGINES

FREE-FLIGHT PERFORMANCE OF 16-INCH-DIAMETER SUPERSONIC RAM-JET UNITS. II - FIVE UNITS DESIGNED FOR COMBUSTION-CHAMBER-INLET MACH NUMBER OF 0.16 AT FREE-STREAM MACH NUMBER OF 1.60 (UNITS B-1, B-2, B-4, AND B-5). Wesley E. Messing and Scott H. Simpkinson. May 5, 1950. 44p. diagrs., photos., tab. (NACA RM E50B14)

FREE-FLIGHT PERFORMANCE OF 16-INCH-DIAMETER SUPERSONIC RAM-JET UNITS. III - FOUR UNITS DESIGNED FOR COMBUSTION-CHAMBER-INLET MACH NUMBER OF 0.245 AT FREE-STREAM MACH NUMBER OF 1.8 (UNITS D-1, D-2, D-3, AND D-4). John H. Disher and Leonard Rabinowitz. June 28, 1950. 41p. diagrs., photos. (NACA RM E50D07)

FREE-FLIGHT PERFORMANCE OF 16-INCH-DIAMETER SUPERSONIC RAM-JET UNITS. IV - PERFORMANCE OF RAM-JET UNITS DESIGNED FOR COMBUSTION-CHAMBER-INLET MACH NUMBER OF 0.21 AT FREE-STREAM MACH NUMBER OF 1.6 OVER A RANGE OF FLIGHT CONDITIONS. Leonard Rabb and Warren J. North. February 26, 1951. 46p. diagrs., photos., tab. (NACA RM E50L18)

COMBUSTION PERFORMANCE EVALUATION OF MAGNESIUM-HYDROCARBON SLURRY BLENDS IN A SIMULATED TAIL-PIPE BURNER. Leonard K. Tower and J. Robert Branstetter. May 15, 1951. 53p. diagrs., photos., tabs. (NACA RM E51C26)

AN EXPERIMENTAL INVESTIGATION OF THE COMBUSTION PROPERTIES OF A HYDROCARBON FUEL AND SEVERAL MAGNESIUM AND BORON SLURRIES. Albert M. Lord. April 1952. 30p. diagrs. (NACA RM E52B01)

MAGNESIUM-SLURRY COMBUSTION PERFORMANCE IN 6.5-INCH-DIAMETER RAM-JET ENGINE MOUNTED IN CONNECTED-PIPE FACILITY. J. Robert Branstetter, James B. Gibbs, and Warner B. Kaufman. August 1953. 63p. diagrs., photos., tabs. (NACA RM E53E27)

STARTING CHARACTERISTICS AND COMBUSTION PERFORMANCE OF MAGNESIUM SLURRY IN 6.5-INCH-DIAMETER RAM-JET ENGINE MOUNTED IN CONNECTED-PIPE FACILITY. James B. Gibbs. January 1954. 25p. diagrs., tabs. (NACA RM E53K05)

BLOW-OUT VELOCITIES OF VARIOUS PETROLEUM, SLURRY, AND HYDRIDE FUELS IN A 1-7/8 INCH DIAMETER COMBUSTOR. Preston N. Cook, Jr., Albert M. Lord, and Samuel Kaye. April 1954. 20p. diagrs., tab. (NACA RM E54A28)

PERFORMANCE OF SLURRIES OF 50 PERCENT BORON IN JP-4 FUEL IN 5-INCH RAM-JET BURNER. Thaine W. Reynolds and Donald P. Haas. June 1954. 31p. diagrs., photos., tabs. (NACA RM E54D07)

BLOW-OUT VELOCITIES OF SEVERAL SLURRY AND LIQUID FUELS IN A 1-7/8 INCH DIAMETER COMBUSTOR. James F. Morris, Robert M. Caves, and Albert M. Lord. February 1955. 12p. diagrs., tab. (NACA RM E54L27a)

GROWTH OF DISTURBANCES IN A FLAME-GENERATED SHEAR REGION. Perry L. Blackshear, Jr. November 1956. iv, 148p. diagrs., photos., tabs. (NACA TN 3830)

EFFECT OF PLASTIC VISCOSITY AND YIELD VALUE ON SPRAY CHARACTERISTICS OF MAGNESIUM-SLURRY FUEL. George M. Prok. January 1957. 23p. diagrs., photo., tabs. (NACA RM E56J19a)

(3.5.2.5) ROCKET ENGINES

THEORETICAL PERFORMANCE OF DIBORANE AS A ROCKET FUEL. Vearl N. Huff, Clyde S. Calvert, and Virginia C. Erdmann. January 10, 1949. 31p. diagrs., tabs. (NACA RM E8I17a)

EXPERIMENTAL INVESTIGATION OF LIQUID DIBORANE - LIQUID OXYGEN PROPELLANT COMBINATION IN 100-POUND-THRUST ROCKET ENGINE. William H. Rowe, Paul M. Ordin, and John M. Diehl. May 9, 1949. 25p. diagrs., photos., tab. (NACA RM E9C11)

EXPERIMENTAL PERFORMANCE OF CHLORINE TRIFLUORIDE - HYDRAZINE PROPELLANT COMBINATION IN 100-POUND-THRUST ROCKET ENGINE. Paul M. Ordin and Riley O. Miller. August 15, 1949. 22p. diagrs., photos. (NACA RM E9F01)

EFFECT OF COMBUSTION-CHAMBER PRESSURE AND NOZZLE EXPANSION RATIO ON THEORETICAL PERFORMANCE OF SEVERAL ROCKET PROPELLANT SYSTEMS. Virginia E. Morrell. May 25, 1950. 15p. diagrs., tabs. (NACA RM E50C30)

THEORETICAL PERFORMANCE OF LITHIUM AND FLUORINE AS A ROCKET PROPELLANT. Sanford Gordon and Vearl N. Huff. May 10, 1951. 22p. diagrs., tabs. (NACA RM E51C01)

INVESTIGATION OF INTERNAL FILM COOLING OF 1000-POUND-THRUST LIQUID-AMMONIA - LIQUID-OXYGEN ROCKET-ENGINE COMBUSTION CHAMBER. Gerald Morrell. July 1951. 42p. diagrs., photos., tabs. (NACA RM E51E04)

THEORETICAL PERFORMANCE OF LIQUID AMMONIA, HYDRAZINE, AND MIXTURE OF LIQUID AMMONIA AND HYDRAZINE AS FUELS WITH LIQUID OXYGEN BIFLUORIDE AS OXIDANT FOR ROCKET ENGINES. I - MIXTURE OF LIQUID AMMONIA AND HYDRAZINE. Vearl N. Huff and Sanford Gordon. February 1952. 24p. diagrs., tabs. (NACA RM E51L11)

THEORETICAL PERFORMANCE OF LIQUID AMMONIA, HYDRAZINE, AND MIXTURE OF LIQUID AMMONIA AND HYDRAZINE AS FUELS WITH LIQUID OXYGEN BIFLUORIDE AS OXIDANT FOR ROCKET ENGINES. II - HYDRAZINE. Vearl N. Huff and Sanford Gordon. September 1952. 20p. diagrs., tabs. (NACA RM E52G09)

THEOREITCAL PERFORMANCE OF LIQUID AMMONIA, HYDRAZINE, AND MIXTURE OF LIQUID AMMONIA AND HYDRAZINE AS FUELS WITH LIQUID OXYGEN BIFLUORIDE AS OXIDANT FOR ROCKET ENGINES. III - LIQUID AMMONIA. Vearl N. Huff and Sanford Gordon. October 1952. 15p. diagrs., tabs. (NACA RM E52H14)

IGNITION DELAYS OF SOME NONAROMATIC FUELS WITH LOW-FREEZING RED FUMING NITRIC ACID IN TEMPERATURE RANGE -40° TO -105° F. Riley O. Miller. January 1953. 17p. diagrs., tabs. (NACA RM E52K20)

THEORETICAL PERFORMANCE OF LIQUID HYDROGEN AND LIQUID FLUORINE AS A ROCKET PROPELLANT. Sanford Gordon and Vearl N. Huff. February 1953. 28p. diagrs., tabs. (NACA RM E52L11)

THEORETICAL PERFORMANCE OF LIQUID AMMONIA AND LIQUID FLUORINE AS A ROCKET PROPELLANT. Sanford Gordon and Vearl N. Huff. March 1953. 25p. diagrs., tabs. (NACA RM E53A26)

THEORETICAL PERFORMANCE OF LIQUID HYDRAZINE AND LIQUID FLUORINE AS A ROCKET PROPELLANT. Sanford Gordon and Vearl N. Huff. July 1953. 83p. diagrs., tabs. (NACA RM E53E12)

THEORETICAL PERFORMANCE OF MIXTURES OF LIQUID AMMONIA AND HYDRAZINE AS FUEL WITH LIQUID FLUORINE AS OXIDANT FOR ROCKET ENGINES. Sanford Gordon and Vearl N. Huff. July 1953. 43p. diagrs., tabs. (NACA RM E53F08)

THEORETICAL MAXIMUM PERFORMANCE OF LIQUID FLUORINE - LIQUID OXYGEN MIXTURES WITH JP-4 FUEL AS ROCKET PROPELLANTS. Sanford Gordon and Roger L. Wilkins. October 1954. 18p. diagrs., tabs. (NACA RM E54H09)

INJECTION PRINCIPLES FROM COMBUSTION STUDIES IN A 200-POUND-THRUST ROCKET ENGINE USING LIQUID OXYGEN AND HEPTANE. M. F. Heidmann and C. M. Auble. June 1955. 55p. diagrs., photos., tabs. (NACA RM E55C22)

THEORETICAL PERFORMANCE OF JP-4 FUEL AND LIQUID OXYGEN AS A ROCKET PROPELLANT. II - EQUILIBRIUM COMPOSITION. Vearl N. Huff, Anthony Fortini, and Sanford Gordon. September 1956. 47p. diagrs., tabs. (NACA RM E56D23)

IGNITION DELAYS AND FLUID PROPERTIES OF SEVERAL FUELS AND NITRIC ACID OXIDANTS IN TEMPERATURE RANGE FROM 70° TO -105° F. Riley O. Miller. December 1956. 32p. diagrs., photos., tabs. (NACA TN 3884. Supersedes RM E51J11)

THEORETICAL ROCKET PERFORMANCE OF JP-4 FUEL WITH MIXTURES OF LIQUID OZONE AND FLUORINE. Vearl N. Huff and Sanford Gordon. January 1957. 22p. diagrs., tabs. (NACA RM E56K14)

THEORETICAL PERFORMANCE OF LIQUID HYDROGEN AND LIQUID FLUORINE AS A ROCKET PROPELLANT FOR A CHAMBER PRESSURE OF 600 POUNDS PER SQUARE INCH ABSOLUTE. Anthony Fortini and Vearl N. Huff. January 1957. 38p. diagrs., tabs. (NACA RM E56L10a)

A STUDY OF SPRAYS FORMED BY TWO IMPINGING JETS. Marcus F. Heidmann, Richard J. Priem, and Jack C. Humphrey. March 1957. 32p. diagrs., photos., tab. (NACA TN 3835. Supersedes TN 2349)

(3.6)
Compression and Compressors

APPLICATION OF STREAM-FILAMENT TECHNIQUES TO DESIGN OF DIFFUSER BETWEEN COMPRESSOR AND COMBUSTOR IN A GAS-TURBINE ENGINE. Norbert O. Stockman. August 1955. 15p. diagrs. (NACA RM E55F06)

(3.6.1)
FLOW THEORY AND EXPERIMENT

SOME EFFECTS OF CHANGING SOLIDITY BY VARYING THE NUMBER OF BLADES ON PERFORMANCE OF AN AXIAL-FLOW COMPRESSOR STAGE. Raymond M. Standahar and George K. Serovy. April 1952. 46p. diagrs., photos., tabs. (NACA RM E52A31)

AN ANALYSIS OF THE POTENTIALITIES OF A TWO-STAGE COUNTERROTATING SUPERSONIC COMPRESSOR. Ward W. Wilcox. July 1952. 41p. diagrs., tab. (NACA RM E52E01)

ANALYSIS OF PART-SPEED OPERATION FOR HIGH-PRESSURE-RATIO MULTISTAGE AXIAL-FLOW COMPRESSORS. William A. Benser. December 1953. 41p. diagrs., tab. (NACA RM E53I15)

ROTATING STALL INVESTIGATION OF 0.72 HUB-TIP RATIO SINGLE-STAGE COMPRESSOR. Robert W. Graham and Vasily D. Prian. March 1954. 21p. diagrs., photos., tabs. (NACA RM E53L17a)

LIFT HYSTERESIS AT STALL AS AN UNSTEADY BOUNDARY-LAYER PHENOMENON. Franklin K. Moore. 1956. ii, 10p. diagrs., tab. (NACA Rept. 1291. Supersedes TN 3571)

LOW-SPEED CASCADE INVESTIGATION OF LOADED LEADING-EDGE COMPRESSOR BLADES. James C. Emery. January 1956. 76p. diagrs., photo., tabs. (NACA RM L55J05)

TABULATION OF MASS-FLOW PARAMETERS FOR USE IN DESIGN OF TURBOMACHINE BLADE ROWS FOR RATIOS OF SPECIFIC HEATS OF 1.3 AND 1.4. Warren J. Whitney. October 1956. 111p. diagrs., tabs. (NACA TN 3831)

INVESTIGATION OF ROTATING STALL IN A SINGLE-STAGE AXIAL COMPRESSOR. S. R. Montgomery and J. J. Braun, Massachusetts Institute of Technology. January 1957. 28p. diagrs., photos. (NACA TN 3823)

(3.6.1.1)
AXIAL FLOW

PERFORMANCE OF HIGH-PRESSURE-RATIO AXIAL-FLOW COMPRESSOR USING HIGHLY CAMBERED NACA 65-SERIES BLOWER BLADES AT HIGH MACH NUMBERS. Charles H. Voit, Donald C. Guentert, and James F. Dugan. March 28, 1950. 22p. diagrs., photos., tabs. (NACA RM E50A09)

EFFECT OF MACH NUMBER ON OVER-ALL PERFORMANCE OF SINGLE-STAGE AXIAL-FLOW COMPRESSOR DESIGNED FOR HIGH PRESSURE RATIO. Charles H. Voit, Donald C. Guentert, and James F. Dugan. July 10, 1950. 19p. diagrs., tab. (NACA RM E50D26)

SOME EFFECTS OF CHANGING SOLIDITY BY VARYING THE NUMBER OF BLADES ON PERFORMANCE OF AN AXIAL-FLOW COMPRESSOR STAGE. Raymond M. Standahar and George K. Serovy. April 1952. 46p. diagrs., photos., tabs. (NACA RM E52A31)

NACA 65-SERIES COMPRESSOR ROTOR PERFORMANCE WITH VARYING ANNULUS-AREA RATIO, SOLIDITY, BLADE ANGLE, AND REYNOLDS NUMBER AND COMPARISON WITH CASCADE RESULTS. Wallace M. Schulze, John R. Erwin, and George C. Ashby, Jr. February 1953. 62p. diagrs., photos., tab. (NACA RM L52L17)

DETERMINATION OF SURGE AND STALL LIMITS OF AN AXIAL-FLOW TURBOJET ENGINE FOR CONTROL APPLICATIONS. Ross D. Schmidt, George Vasu, and Edward W. McGraw. August 1953. 30p. diagrs., tab. (NACA RM E53B10)

ANALYSIS OF PART-SPEED OPERATION FOR HIGH-PRESSURE-RATIO MULTISTAGE AXIAL-FLOW COMPRESSORS. William A. Benser. December 1953. 41p. diagrs., tab. (NACA RM E53I15)

ROTATING STALL INVESTIGATION OF 0.72 HUB-TIP RATIO SINGLE-STAGE COMPRESSOR. Robert W. Graham and Vasily D. Prian. March 1954. 21p. diagrs., photos., tabs. (NACA RM E53L17a)

EXPERIMENTAL DETERMINATION OF AERODYNAMIC FORCES NORMAL TO THE CHORD DUE TO ROTATING STALL ACTING ON COMPRESSOR BLADING. Donald F. Johnson and Eleanor L. Costilow. August 1954. 27p. diagrs., photos. (NACA RM E54F14)

COMPARISON OF LOW-SPEED ROTOR AND CASCADE PERFORMANCE FOR MEDIUM-CAMBER NACA 65-(C_{l_o} A_{10})10 COMPRESSOR-BLADE SECTIONS OVER A WIDE RANGE OF ROTOR BLADE-SETTING ANGLES AT SOLIDITIES OF 1.0 AND 0.5. George C. Ashby, Jr. December 1954. 40p. diagrs., photo. (NACA RM L54I13)

DISTRIBUTION OF LOSSES BEHIND A COMPRESSOR ROTOR AS MEASURED BY A ROTATING RAKE. William R. Godwin. January 1956. 66p. diagrs., photo. (NACA RM L55F29)

LOW-SPEED WAKE CHARACTERISTICS OF TWO-DIMENSIONAL CASCADE AND ISOLATED AIRFOIL SECTIONS. Seymour Lieblein and William H. Roudebush. October 1956. 49p. diagrs., tabs. (NACA TN 3771)

TWO-DIMENSIONAL LOW-SPEED CASCADE INVESTIGATION OF NACA COMPRESSOR BLADE SECTIONS HAVING A SYSTEMATIC VARIATION IN MEAN-LINE LOADING. John R. Erwin, Melvyn Savage, and James C. Emery. November 1956. 129p. diagrs., tabs. (NACA TN 3817. Supersedes RM L53I30b)

SUMMARY OF 65-SERIES COMPRESSOR-BLADE LOW-SPEED CASCADE DATA BY USE OF THE CARPET-PLOTTING TECHNIQUE. A. Richard Felix. February 1957. 18p. diagrs. (NACA TN 3913. Supersedes RM L54H18a)

SYSTEMATIC TWO-DIMENSIONAL CASCADE TESTS OF NACA 65-SERIES COMPRESSOR BLADES AT LOW SPEEDS. L. Joseph Herrig, James C. Emery, and John R. Erwin. February 1957. 223p. diagrs., photo., tabs. (NACA TN 3916. Supersedes RM L51G31)

COMPARISON OF NACA 65-SERIES COMPRESSOR-BLADE PRESSURE DISTRIBUTIONS AND PERFORMANCE IN A ROTOR AND IN CASCADE. Willard R. Westphal and William R. Godwin. March 1957. 53p. diagrs., photos. (NACA TN 3806. Supersedes RM L51H20)

A COMPARISON OF TYPICAL NATIONAL GAS TURBINE ESTABLISHMENT AND NACA AXIAL-FLOW COMPRESSOR BLADE SECTIONS IN CASCADE AT LOW SPEED. A. Richard Felix and James C. Emery. March 1957. 46p. diagrs., photo., tabs. (NACA TN 3937. Supersedes RM L53B26a)

CASCADE INVESTIGATION OF A RELATED SERIES OF 6-PERCENT-THICK GUIDE-VANE PROFILES AND DESIGN CHARTS. James C. Dunavant. May 1957. 48p. diagrs., tabs. (NACA TN 3959. Supersedes RM L54I02)

(3.6.1.2) RADIAL FLOW

ANALYTICAL DETERMINATION OF EFFECT OF TURBINE COOLING-AIR-IMPELLER PERFORMANCE ON ENGINE PERFORMANCE AND COMPARISON OF EXPERIMENTALLY DETERMINED PERFORMANCE OF IMPELLERS WITH AND WITHOUT INDUCER VANES. Louis J. Schafer, Jr., and Robert O. Hickel. October 1954. 44p. diagrs., photos. (NACA RM E54H12)

THEORETICAL ANALYSIS OF INCOMPRESSIBLE FLOW THROUGH A RADIAL-INLET CENTRIFUGAL IMPELLER AT VARIOUS WEIGHT FLOWS. James J. Kramer, Vasily D. Prian, and Chung-Hua Wu. 1956. ii, 16p. diagrs., tab. (NACA Rept. 1279. Supersedes TN 3448; TN 3449)

(3.6.1.4) POSITIVE DISPLACEMENT

THERMODYNAMIC STUDY OF A ROOTS COMPRESSOR AS A SOURCE OF HIGH-TEMPERATURE AIR. Clarence B. Cohen, Richard R. Woollett, and Kenneth C. Weston. June 1957. 34p. diagrs., tab. (NACA TN 4025)

(3.6.2) STRESS AND VIBRATION

EXPERIMENTAL DETERMINATION OF AERODYNAMIC FORCES NORMAL TO THE CHORD DUE TO ROTATING STALL ACTING ON COMPRESSOR BLADING. Donald F. Johnson and Eleanor L. Costilow. August 1954. 27p. diagrs., photos. (NACA RM E54F14)

INVESTIGATION OF ROTATING STALL IN A SINGLE-STAGE AXIAL COMPRESSOR. S. R. Montgomery and J. J. Braun, Massachusetts Institute of Technology. January 1957. 28p. diagrs., photos. (NACA TN 3823)

(3.6.3) MATCHING

ANALYSIS OF PART-SPEED OPERATION FOR HIGH-PRESSURE-RATIO MULTISTAGE AXIAL-FLOW COMPRESSORS. William A. Benser. December 1953. 41p. diagrs., tab. (NACA RM E53I15)

(3.7) Turbines

AN EXPERIMENTAL EVALUATION OF SEVERAL DESIGN VARIATIONS OF HOLLOW TURBINE BLADES FOR EXPENDABLE ENGINE APPLICATION. W. C. Morgan and R. H. Kemp. February 1955. 33p. diagr., photos., tabs. (NACA RM E54K23)

(3.7.1) FLOW THEORY AND EXPERIMENT

REMOVAL OF SECONDARY-FLOW ACCUMULATIONS IN A TWO-DIMENSIONAL TURBINE NOZZLE PASSAGE BY BOUNDARY-LAYER BLEED. Robert Y. Wong. June 1955. 22p. diagrs., photos., tab. (NACA RM E55E11)

TABULATION OF MASS-FLOW PARAMETERS FOR USE IN DESIGN OF TURBOMACHINE BLADE ROWS FOR RATIOS OF SPECIFIC HEATS OF 1.3 AND 1.4. Warren J. Whitney. October 1956. 111p. diagrs., tabs. (NACA TN 3831)

(3.7.1.1) AXIAL FLOW

EXPERIMENTAL INVESTIGATION OF A CONSERVATIVELY DESIGNED TURBINE AT FOUR ROTOR-BLADE SOLIDITIES. Jack A. Heller, Rose L. Whitney, and Richard H. Cavicchi. July 1952. 25p. diagrs., photo., tab. (NACA RM E52C17)

INVESTIGATION OF DISTRIBUTION OF LOSSES IN A CONSERVATIVELY DESIGNED TURBINE. Rose L. Whitney, Jack A. Heller, and Cavour H. Hauser. March 1953. 26p. diagrs., photo. (NACA RM E53A16)

EXPERIMENTAL INVESTIGATION OF THE EFFECT OF A SHROUDED ROTOR ON THE PERFORMANCE OF A CONSERVATIVELY DESIGNED TURBINE. Cavour H. Hauser and Henry W. Plohr. May 1954. 14p. diagrs., photo. (NACA RM E54C11)

EXPERIMENTAL INVESTIGATION OF EFFECT OF HIGH-ASPECT-RATIO ROTOR BLADES ON PERFORMANCE OF CONSERVATIVELY DESIGNED TURBINE. Cavour H. Hauser and William J. Nusbaum. May 1954. 13p. diagrs., photo. (NACA RM E54C18)

EXPERIMENTAL INVESTIGATION OF TURBINE STATOR-BLADE-OUTLET BOUNDARY-LAYER CHARACTERISTICS AND A COMPARISON WITH THEORETICAL RESULTS. Warren J. Whitney, Warner L. Stewart, and James W. Miser. March 1956. 24p. diagrs. (NACA RM E55K24)

USE OF MEAN-SECTION BOUNDARY-LAYER PARAMETERS IN PREDICTING THREE-DIMENSIONAL TURBINE STATOR LOSSES. Warner L. Stewart, Warren J. Whitney, and Robert Y. Wong. March 1956. 21p. diagrs. (NACA RM E55L12a)

INVESTIGATION OF A RELATED SERIES OF TURBINE-BLADE PROFILES IN CASCADE. James C. Dunavant and John R. Erwin. October 1956. 100p. diagrs. (NACA TN 3802. Supersedes RM L53G15)

(3.7.1.3) MIXED FLOW

EFFECT OF CERTAIN COMBINATIONS OF WALL CONTOURING AND DESIGN EXIT VELOCITY DISTRIBUTION ON PREDICTION OF TURBINE-NOZZLE MASS FLOW. Warner L. Stewart, Warren J. Whitney, and Thomas R. Heaton. July 1953. 17p. diagrs., tab. (NACA RM E53E14)

INVESTIGATION OF SEMIVANELESS TURBINE STATOR DESIGNED TO PRODUCE AXIALLY SYMMETRICAL FREE-VORTEX FLOW. Harold E. Rohlik and William T. Wintucky. April 1957. 39p. diagrs., photos., tabs. (NACA TN 3980)

(3.7.2) COOLING

TEMPERATURE RESPONSE OF TURBINE-BLADE METAL COVERED WITH OXIDE COATINGS SUPPLIED BY FUEL ADDITIVES. Richard J. McCafferty and Helmut F. Butze. August 1952. 20p. diagrs., photos., tab. (NACA RM E52G07)

ANALYTICAL PROCEDURES FOR RAPID SELECTION OF COOLANT PASSAGE CONFIGURATIONS FOR AIR-COOLED TURBINE ROTOR BLADES AND FOR EVALUATION OF HEAT-TRANSFER, STRENGTH, AND PRESSURE-LOSS CHARACTERISTICS. Robert R. Ziemer and Henry O. Slone. September 1952. 53p. diagrs., tabs. (NACA RM E52G18)

COMPARISON OF PRESSURE-LOSS CHARACTERISTICS OF SEVERAL TAIL-CONE AIR-INDUCTION SYSTEMS FOR AIR-COOLED GAS-TURBINE ROTORS. Gordon T. Smith and Arthur N. Curren. January 1953. 52p. diagrs., tab. (NACA RM E52K07)

AIR-FLOW CHARACTERISTICS OF BRAZED AND ROLLED WIRE FILTER CLOTH FOR TRANSPIRATION-COOLED AFTERBURNERS. William K. Koffel. October 1953. 55p. diagrs., photos., tabs. (NACA RM E53H24)

ANALYTICAL DETERMINATION OF EFFECT OF TURBINE COOLING-AIR-IMPELLER PERFORMANCE ON ENGINE PERFORMANCE AND COMPARISON OF EXPERIMENTALLY DETERMINED PERFORMANCE OF IMPELLERS WITH AND WITHOUT INDUCER VANES. Louis J. Schafer, Jr., and Robert O. Hickel. October 1954. 44p. diagrs., photos. (NACA RM E54H12)

METHOD OF DESIGNING CORRUGATED SURFACES HAVING MAXIMUM COOLING EFFECTIVENESS WITHIN PRESSURE-DROP LIMITATIONS FOR APPLICATION TO COOLED TURBINE BLADES. Henry O. Slone, James E. Hubbartt, and Vernon L. Arne. December 1954. 103p. diagrs., tab., charts. (NACA RM E54H20)

AN EXPERIMENTAL EVALUATION OF SEVERAL DESIGN VARIATIONS OF HOLLOW TURBINE BLADES FOR EXPENDABLE ENGINE APPLICATION. W. C. Morgan and R. H. Kemp. February 1955. 33p. diagr., photos., tabs. (NACA RM E54K23)

EFFECTS OF TURBINE COOLING WITH COMPRESSOR AIR BLEED ON GAS-TURBINE ENGINE PERFORMANCE. Jack B. Esgar and Robert R. Ziemer. March 1955. 45p. diagrs. (NACA RM E54L20)

ANALYSIS OF LAMINAR INCOMPRESSIBLE FLOW IN SEMIPOROUS CHANNELS. Patrick L. Donoughe. August 1956. 25p. diagrs., tabs. (NACA TN 3759)

METHODS FOR MEASURING TEMPERATURES OF THIN-WALLED GAS-TURBINE BLADES. Francis S. Stepka and Robert O. Hickel. November 1956. 25p. diagrs., photos., tab. (NACA RM E56G17)

RAPID DETERMINATION OF CORE DIMENSIONS OF CROSSFLOW GAS-TO-GAS HEAT EXCHANGERS. Anthony J. Diaguila and John N. B. Livingood. December 1956. 19p. diagrs., tabs. (NACA TN 3891)

A BALANCED-PRESSURE SLIDING SEAL FOR TRANSFER OF PRESSURIZED AIR BETWEEN STATIONARY AND ROTATING PARTS. Arthur N. Curren and Reeves P. Cochran. January 1957. 17p. diagrs. (NACA RM E56I11)

EFFECT OF CHORD SIZE ON WEIGHT AND COOLING CHARACTERISTICS OF AIR-COOLED TURBINE BLADES. Jack B. Esgar, Eugene F. Schum, and Arthur N. Curren. January 1957. 37p. diagrs., tabs. (NACA TN 3923)

(3.7.3)
STRESS AND VIBRATION

RELATION OF ENGINE TURBINE-BLADE LIFE TO STRESS-RUPTURE PROPERTIES OF THE ALLOYS, STELLITE 21, HASTELLOY B, CAST S-816, FORGED S-816, X-40, NIMONIC 80, REFRACTALOY 26, N-155, AND INCONEL X. F. B. Garrett and C. Yaker. August 1951. 59p. diagrs., photos., tabs. (NACA RM E51G13)

INVESTIGATION OF MECHANICAL FASTENINGS FOR SOLID TURBINE BLADES MADE FROM DUCTILE MATERIALS. André J. Meyer, Jr., Albert Kaufman, and W. C. Caywood. August 1954. 45p. diagrs., photos., tabs. (NACA RM E54E21)

PERFORMANCE OF AS-FORGED, HEAT-TREATED, AND OVERAGED S-816 BLADES IN A TURBOJET ENGINE. J. W. Weeton, F. J. Clauss, and J. R. Johnston. March 1955. 51p. diagrs., photos., tabs. (NACA RM E54K17)

ENGINE PERFORMANCE OF PRECISION-FORGED, ELECTRO-POLISHED AND MACHINED BLADES OF NIMONIC 80 AND 80A ALLOYS. Paul F. Sikora and James R. Johnston. April 1955. 27p. diagrs., photos., tabs. (NACA RM E55A21)

AN EVALUATION OF ELECTROPOLISHED AND NONELECTROPOLISHED BLADES OF ALLOYS REFRACTALOY 26, M-252, AND WASPALOY IN A J33-9 TURBOJET ENGINE. F. J. Clauss, R. A. Signorelli, and J. R. Johnston. June 1955. 27p. diagrs., photos., tabs. (NACA RM E54L29a)

PERFORMANCE OF INCONEL 550 TURBINE BLADES IN A TURBOJET ENGINE AND EFFECTS OF DIFFERENT FORGING TEMPERATURES AND HEAT TREATMENTS. C. A. Gyorgak, J. R. Johnston, and J. W. Weeton. August 1955. 55p. diagrs., photos., tabs. (NACA RM E55F08)

THE DESIGN OF BRITTLE-MATERIAL BLADE ROOTS BASED ON THEORY AND RUPTURE TESTS OF PLASTIC MODELS. André J. Meyer, Jr., Albert Kaufman, and William C. Caywood. September 1956. 46p. diagrs., photos., tab. (NACA TN 3773. Supersedes RM E53C12)

SURVEY OF MICROSTRUCTURES AND MECHANICAL PROPERTIES OF OVERTEMPERATURED S-816 TURBINE BUCKETS FROM J47 ENGINES. S. Floreen and R. A. Signorelli. March 1957. 41p. diagrs., photos., tabs. (NACA RM E56K30)

DESIGN AND EXPERIMENTAL EVALUATION OF A LIGHT-WEIGHT TURBINE-WHEEL ASSEMBLY. W. C. Morgan and R. H. Kemp. June 1957. 25p. diagrs., photos. (NACA TN 4023)

(3.8)
Friction and Lubrication

(3.8.1)
THEORY AND EXPERIMENT

HIGH-TEMPERATURE LUBRICANTS AND BEARINGS FOR AIRCRAFT TURBINE ENGINES. NACA Subcommittee on Lubrication and Wear. APPENDIX A: HIGH-SPEED AIRCRAFT MISSIONS. C. M. Michaels, Wright Air Development Center. APPENDIX B: ENGINE DESIGN TRENDS AFFECTING LUBRICANTS AND BEARINGS. C. C. Singleterry, Bureau of Aeronautics, Department of the Navy. APPENDIX C: PROBLEMS ENCOUNTERED AT HIGH TEMPERATURES IN LUBRICATION SYSTEMS OF TURBINE ENGINES. G. P. Townsend, Westinghouse Electric Corp. APPENDIX D: TURBOPROP GEAR LUBRICATION PROBLEMS. C. J. McDowall, General Motors Corp. APPENDIX E: NOTES ON HIGH-TEMPERATURE FLUIDS AND LUBRICANTS. E. E. Klaus and M. R. Fenske, Pennsylvania State College. APPENDIX F: NACA RESEARCH ON LUBRICANTS, BEARINGS, AND LUBRICATION FOR HIGH-TEMPERATURE TURBINE ENGINES. R. L. Johnson and E. E. Bisson. APPENDIX G: HIGH-TEMPERATURE BEARING PROBLEMS. F. W. Wellons. July 1954. (i), 101p. diagrs., photos., tabs. (NACA RM E54D27)

(3.8.1.2)
CHEMISTRY OF LUBRICATION

FRICTION, WEAR, AND SURFACE DAMAGE OF METALS AS AFFECTED BY SOLID SURFACE FILMS. Edmond E. Bisson, Robert L. Johnson, Max A. Swikert, and Douglas Godfrey. 1956. iii, 19p. diagrs., photos., tab. (NACA Rept. 1254. Supersedes TN 3444)

(3.8.1.3)
SURFACE CONDITIONS

FRICTION, WEAR, AND SURFACE DAMAGE OF METALS AS AFFECTED BY SOLID SURFACE FILMS. Edmond E. Bisson, Robert L. Johnson, Max A. Swikert, and Douglas Godfrey. 1956. iii, 19p. diagrs., photos., tab. (NACA Rept. 1254. Supersedes TN 3444)

(3.8.2)
SLIDING CONTACT SURFACES

HIGH-TEMPERATURE LUBRICANTS AND BEARINGS FOR AIRCRAFT TURBINE ENGINES. NACA Subcommittee on Lubrication and Wear. APPENDIX A: HIGH-SPEED AIRCRAFT MISSIONS. C. M. Michaels, Wright Air Development Center. APPENDIX B: ENGINE DESIGN TRENDS AFFECTING LUBRICANTS AND BEARINGS. C. C. Singleterry, Bureau of Aeronautics, Department of the Navy. APPENDIX C: PROBLEMS ENCOUNTERED AT HIGH TEMPERATURES IN LUBRICATION SYSTEMS OF TURBINE ENGINES. G. P. Townsend, Westinghouse Electric Corp. APPENDIX D: TURBOPROP GEAR LUBRICATION PROBLEMS. C. J. McDowall, General Motors Corp. APPENDIX E: NOTES ON HIGH-TEMPERATURE FLUIDS AND LUBRICANTS. E. E. Klaus and M. R. Fenske, Pennsylvania State College. APPENDIX F: NACA RESEARCH ON LUBRICANTS, BEARINGS, AND LUBRICATION FOR HIGH-TEMPERATURE TURBINE ENGINES. R. L. Johnson and E. E. Bisson. APPENDIX G: HIGH-TEMPERATURE BEARING PROBLEMS. F. W. Wellons. July 1954. (i), 101p. diagrs., photos., tabs. (NACA RM E54D27)

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A BALANCED-PRESSURE SLIDING SEAL FOR TRANSFER OF PRESSURIZED AIR BETWEEN STATIONARY AND ROTATING PARTS. Arthur N. Curren and Reeves P. Cochran. January 1957. 17p. diagrs. (NACA RM E56I11)

(3.8.3)
ROLLING CONTACT SURFACES

EFFECT OF THREE DESIGN PARAMETERS ON THE OPERATING CHARACTERISTICS OF 75-MILLIMETER-BORE CYLINDRICAL ROLLER BEARINGS AT HIGH SPEEDS. William J. Anderson. October 1956. 37p. diagrs., photo., tabs. (NACA TN 3772)

PERFORMANCE OF 110-MILLIMETER-BORE M-1 TOOL STEEL BALL BEARINGS AT HIGH SPEEDS, LOADS, AND TEMPERATURES. William J. Anderson. January 1957. 38p. diagrs., photos., tabs. (NACA TN 3892)

EFFECT OF FIBER ORIENTATION ON BALL FAILURES UNDER ROLLING-CONTACT CONDITIONS. Robert H. Butler, H. Robert Bear, and Thomas L. Carter. February 1957. 35p. diagrs., photos., tabs. (NACA TN 3933)

PRELIMINARY METALLOGRAPHIC STUDIES OF BALL FATIGUE UNDER ROLLING-CONTACT CONDITIONS. H. Robert Bear and Robert H. Butler. March 1957. 38p. diagrs., photos. (NACA TN 3925)

STRESS-LIFE RELATION OF THE ROLLING-CONTACT FATIGUE SPIN RIG. Robert H. Butler and Thomas L. Carter. March 1957. 23p. diagrs., photos., tabs. (NACA TN 3930)

(3.8.3.1) ANTIFRICTION BEARINGS

HIGH-TEMPERATURE LUBRICANTS AND BEARINGS FOR AIRCRAFT TURBINE ENGINES. NACA Subcommittee on Lubrication and Wear. APPENDIX A: HIGH-SPEED AIRCRAFT MISSIONS. C. M. Michaels, Wright Air Development Center. APPENDIX B: ENGINE DESIGN TRENDS AFFECTING LUBRICANTS AND BEARINGS. C. C. Singleterry, Bureau of Aeronautics, Department of the Navy. APPENDIX C: PROBLEMS ENCOUNTERED AT HIGH TEMPERATURES IN LUBRICATION SYSTEMS OF TURBINE ENGINES. G. P. Townsend, Westinghouse Electric Corp. APPENDIX D: TURBOPROP GEAR LUBRICATION PROBLEMS. C. J. McDowall, General Motors Corp. APPENDIX E: NOTES ON HIGH-TEMPERATURE FLUIDS AND LUBRICANTS. E. E. Klaus and M. R. Fenske, Pennsylvania State College. APPENDIX F: NACA RESEARCH ON LUBRICANTS, BEARINGS, AND LUBRICATION FOR HIGH-TEMPERATURE TURBINE ENGINES. R. L. Johnson and E. E. Bisson. APPENDIX G: HIGH-TEMPERATURE BEARING PROBLEMS. F. W. Wellons. July 1954. (i), 101p. diagrs., photos., tabs. (NACA RM E54D27)

FRICTION, WEAR, AND SURFACE DAMAGE OF METALS AS AFFECTED BY SOLID SURFACE FILMS. Edmond E. Bisson, Robert L. Johnson, Max A. Swikert, and Douglas Godfrey. 1956. iii, 19p. diagrs., photos., tab. (NACA Rept. 1254. Supersedes TN 3444)

EFFECT OF THREE DESIGN PARAMETERS ON THE OPERATING CHARACTERISTICS OF 75-MILLIMETER-BORE CYLINDRICAL ROLLER BEARINGS AT HIGH SPEEDS. William J. Anderson. October 1956. 37p. diagrs., photo., tabs. (NACA TN 3772)

PERFORMANCE OF 110-MILLIMETER-BORE M-1 TOOL STEEL BALL BEARINGS AT HIGH SPEEDS, LOADS, AND TEMPERATURES. William J. Anderson. January 1957. 38p. diagrs., photos., tabs. (NACA TN 3892)

(3.8.4) SLIDING AND ROLLING CONTACT SURFACES

EFFECT OF THREE DESIGN PARAMETERS ON THE OPERATING CHARACTERISTICS OF 75-MILLIMETER-BORE CYLINDRICAL ROLLER BEARINGS AT HIGH SPEEDS. William J. Anderson. October 1956. 37p. diagrs., photo., tabs. (NACA TN 3772)

PERFORMANCE OF 110-MILLIMETER-BORE M-1 TOOL STEEL BALL BEARINGS AT HIGH SPEEDS, LOADS, AND TEMPERATURES. William J. Anderson. January 1957. 38p. diagrs., photos., tabs. (NACA TN 3892)

(3.8.4.1) GEARS

HIGH-TEMPERATURE LUBRICANTS AND BEARINGS FOR AIRCRAFT TURBINE ENGINES. NACA Subcommittee on Lubrication and Wear. APPENDIX A: HIGH-SPEED AIRCRAFT MISSIONS. C. M. Michaels, Wright Air Development Center. APPENDIX B: ENGINE DESIGN TRENDS AFFECTING LUBRICANTS AND BEARINGS. C. C. Singleterry, Bureau of Aeronautics, Department of the Navy. APPENDIX C: PROBLEMS ENCOUNTERED AT HIGH TEMPERATURES IN LUBRICATION SYSTEMS OF TURBINE ENGINES. G. P. Townsend, Westinghouse Electric Corp. APPENDIX D: TURBOPROP GEAR LUBRICATION PROBLEMS. C. J. McDowall, General Motors Corp. APPENDIX E: NOTES ON HIGH-TEMPERATURE FLUIDS AND LUBRICANTS. E. E. Klaus and M. R. Fenske, Pennsylvania State College. APPENDIX F: NACA RESEARCH ON LUBRICANTS, BEARINGS, AND LUBRICATION FOR HIGH-TEMPERATURE TURBINE ENGINES. R. L. Johnson and E. E. Bisson. APPENDIX G: HIGH-TEMPERATURE BEARING PROBLEMS. F. W. Wellons. July 1954. (i), 101p. diagrs., photos., tabs. (NACA RM E54D27)

(3.8.5) LUBRICANTS

HIGH-TEMPERATURE LUBRICANTS AND BEARINGS FOR AIRCRAFT TURBINE ENGINES. NACA Subcommittee on Lubrication and Wear. APPENDIX A: HIGH-SPEED AIRCRAFT MISSIONS. C. M. Michaels, Wright Air Development Center. APPENDIX B: ENGINE DESIGN TRENDS AFFECTING LUBRICANTS AND BEARINGS. C. C. Singleterry, Bureau of Aeronautics, Department of the Navy. APPENDIX C: PROBLEMS ENCOUNTERED AT HIGH TEMPERATURES IN LUBRICATION SYSTEMS OF TURBINE ENGINES. G. P. Townsend, Westinghouse Electric Corp. APPENDIX D: TURBOPROP GEAR LUBRICATION PROBLEMS. C. J. McDowall, General Motors Corp. APPENDIX E: NOTES ON HIGH-TEMPERATURE FLUIDS AND LUBRICANTS. E. E. Klaus and M. R. Fenske, Pennsylvania State College. APPENDIX F: NACA RESEARCH ON LUBRICANTS, BEARINGS, AND LUBRICATION FOR HIGH-TEMPERATURE TURBINE ENGINES. R. L. Johnson and E. E. Bisson. APPENDIX G: HIGH-TEMPERATURE BEARING PROBLEMS. F. W. Wellons. July 1954. (i), 101p. diagrs., photos., tabs. (NACA RM E54D27)

FRICTION, WEAR, AND SURFACE DAMAGE OF METALS AS AFFECTED BY SOLID SURFACE FILMS. Edmond E. Bisson, Robert L. Johnson, Max A. Swikert, and Douglas Godfrey. 1956. iii, 19p. diagrs., photos., tab. (NACA Rept. 1254. Supersedes TN 3444)

(3.9)
Heat Transfer

INVESTIGATION OF INTERNAL FILM COOLING OF 1000-POUND-THRUST LIQUID-AMMONIA - LIQUID-OXYGEN ROCKET-ENGINE COMBUSTION CHAMBER. Gerald Morrell. July 1951. 42p. diagrs., photos., tabs. (NACA RM E51E04)

AIR-FLOW CHARACTERISTICS OF BRAZED AND ROLLED WIRE FILTER CLOTH FOR TRANSPIRATION-COOLED AFTERBURNERS. William K. Koffel. October 1953. 55p. diagrs., photos., tabs. (NACA RM E53H24)

METHOD OF DESIGNING CORRUGATED SURFACES HAVING MAXIMUM COOLING EFFECTIVENESS WITHIN PRESSURE-DROP LIMITATIONS FOR APPLICATION TO COOLED TURBINE BLADES. Henry O. Slone, James E. Hubbartt, and Vernon L. Arne. December 1954. 103p. diagrs., tab., charts. (NACA RM E54H20)

REVIEW OF EXPERIMENTAL INVESTIGATIONS OF LIQUID-METAL HEAT TRANSFER. Bernard Lubarsky and Samuel J. Kaufman. 1956. ii, 33p. diagrs., tab. (NACA Rept. 1270. Supersedes TN 3336)

SIMILAR SOLUTIONS FOR THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER AND PRESSURE GRADIENT. Clarence B. Cohen and Eli Reshotko. 1956. ii, 38p. diagrs., tabs. (NACA Rept. 1293. Supersedes TN 3325)

THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER AND ARBITRARY PRESSURE GRADIENT. Clarence B. Cohen and Eli Reshotko. 1956. ii, 16p. diagrs., tabs. (NACA Rept. 1294. Supersedes TN 3326)

EFFECT OF PHOSPHATE COATINGS ON TEMPERATURE OF METAL PARTS EXPOSED TO FLAME ENVIRONMENTS. George C. Fryburg, Norman H. Katz, and Sidney L. Simon. July 1956. 20p. diagrs., photo., tabs. (NACA TN 3279)

RAPID DETERMINATION OF CORE DIMENSIONS OF CROSSFLOW GAS-TO-GAS HEAT EXCHANGERS. Anthony J. Diaguila and John N. B. Livingood. December 1956. 19p. diagrs., tabs. (NACA TN 3891)

EFFECT OF CHORD SIZE ON WEIGHT AND COOLING CHARACTERISTICS OF AIR-COOLED TURBINE BLADES. Jack B. Esgar, Eugene F. Schum, and Arthur N. Curren. January 1957. 37p. diagrs., tabs. (NACA TN 3923)

THERMODYNAMIC STUDY OF A ROOTS COMPRESSOR AS A SOURCE OF HIGH-TEMPERATURE AIR. Clarence B. Cohen, Richard R. Woollett, and Kenneth C. Weston. June 1957. 34p. diagrs., tab. (NACA TN 4025)

(3.9.1)
THEORY AND EXPERIMENT

REVIEW OF EXPERIMENTAL INVESTIGATIONS OF LIQUID-METAL HEAT TRANSFER. Bernard Lubarsky and Samuel J. Kaufman. 1956. ii, 33p. diagrs., tab. (NACA Rept. 1270. Supersedes TN 3336)

AERODYNAMIC MIXING DOWNSTREAM FROM LINE SOURCE OF HEAT IN HIGH-INTENSITY SOUND FIELD. William R. Mickelsen and Lionel V. Baldwin. August 1956. (ii), 75p. diagrs., photos. (NACA TN 3760)

DRAG COEFFICIENTS FOR DROPLETS AND SOLID SPHERES IN CLOUDS ACCELERATING IN AIR-STREAMS. Robert D. Ingebo. September 1956. 31p. diagrs., photos., tab. (NACA TN 3762)

RADIATION AND RECOVERY CORRECTIONS AND TIME CONSTANTS OF SEVERAL CHROMEL-ALUMEL THERMOCOUPLE PROBES IN HIGH-TEMPERATURE, HIGH-VELOCITY GAS STREAMS. George E. Glawe, Frederick S. Simmons, and Truman M. Stickney. October 1956. 25p. diagrs., photo., tabs. (NACA TN 3766)

INVESTIGATION OF TRANSIENT POOL BOILING DUE TO SUDDEN LARGE POWER SURGE. Robert Cole. December 1956. 44p. diagrs., photos., tabs. (NACA TN 3885)

THEORY AND DESIGN OF A PNEUMATIC TEMPERATURE PROBE AND EXPERIMENTAL RESULTS OBTAINED IN A HIGH-TEMPERATURE GAS STREAM. Frederick S. Simmons and George E. Glawe. January 1957. 41p. diagrs., photo. (NACA TN 3893)

EFFECT OF AN INTERFACE ON TRANSIENT TEMPERATURE DISTRIBUTION IN COMPOSITE AIRCRAFT JOINTS. Martin E. Barzelay and George F. Holloway, Syracuse University. April 1957. 51p. diagrs., photo., tabs. (NACA TN 3824)

EXPERIMENTAL STUDY OF HEAT TRANSFER TO SMALL CYLINDERS IN A SUBSONIC, HIGH-TEMPERATURE GAS STREAM. George E. Glawe and Robert C. Johnson. APPENDIX C: METHOD USED TO COMPUTE VISCOSITY AND THERMAL CONDUCTIVITY OF COMBUSTION GAS MIXTURES. Richard S. Brokaw and Robert C. Johnson. May 1957. 21p. diagrs., photo. (NACA TN 3934)

(3.9.2)
HEAT EXCHANGERS

RAPID DETERMINATION OF CORE DIMENSIONS OF CROSSFLOW GAS-TO-GAS HEAT EXCHANGERS. Anthony J. Diaguila and John N. B. Livingood. December 1956. 19p. diagrs., tabs. (NACA TN 3891)

(3.10)
Cooling of Engines

(3.10.1)
RECIPROCATING ENGINES

(3.10.1.2)
AIR-COOLED

ASPECTS OF INTERNAL-FLOW-SYSTEM DESIGN FOR HELICOPTER PROPULSIVE UNITS. John R. Henry. September 1954. 24p. diagrs. (NACA RM L54F29)

(3.10.2)
GAS-TURBINE SYSTEMS

PRELIMINARY INVESTIGATION OF COOLING-AIR EJECTOR PERFORMANCE AT PRESSURE RATIOS FROM 1 TO 10. C. W. Ellis, D. P. Hollister, and A. F. Sargent, Jr. October 1951. 21p. diagrs. (NACA RM E51H21)

TEMPERATURE RESPONSE OF TURBINE-BLADE METAL COVERED WITH OXIDE COATINGS SUPPLIED BY FUEL ADDITIVES. Richard J. McCafferty and Helmut F. Butze. August 1952. 20p. diagrs., photos., tab. (NACA RM E52G07)

ANALYTICAL PROCEDURES FOR RAPID SELECTION OF COOLANT PASSAGE CONFIGURATIONS FOR AIR-COOLED TURBINE ROTOR BLADES AND FOR EVALUATION OF HEAT-TRANSFER, STRENGTH, AND PRESSURE-LOSS CHARACTERISTICS. Robert R. Ziemer and Henry O. Slone. September 1952. 53p. diagrs., tabs. (NACA RM E52G18)

AIR-FLOW CHARACTERISTICS OF BRAZED AND ROLLED WIRE FILTER CLOTH FOR TRANSPIRATION-COOLED AFTERBURNERS. William K. Koffel. October 1953. 55p. diagrs., photos., tabs. (NACA RM E53H24)

EFFECTS OF TURBINE COOLING WITH COMPRESSOR AIR BLEED ON GAS-TURBINE ENGINE PERFORMANCE. Jack B. Esgar and Robert R. Ziemer. March 1955. 45p. diagrs. (NACA RM E54L20)

RAPID DETERMINATION OF CORE DIMENSIONS OF CROSSFLOW GAS-TO-GAS HEAT EXCHANGERS. Anthony J. Diaguila and John N. B. Livingood. December 1956. 19p. diagrs., tabs. (NACA TN 3891)

A BALANCED-PRESSURE SLIDING SEAL FOR TRANSFER OF PRESSURIZED AIR BETWEEN STATIONARY AND ROTATING PARTS. Arthur N. Curren and Reeves P. Cochran. January 1957. 17p. diagrs. (NACA RM E56I11)

ANALYTICAL INVESTIGATION OF THE EFFECT OF WATER INJECTION ON SUPERSONIC TURBOJET-ENGINE - INLET MATCHING AND THRUST AUGMENTATION. Andrew Beke. January 1957. 25p. diagrs. (NACA TN 3922)

EFFECT OF CHORD SIZE ON WEIGHT AND COOLING CHARACTERISTICS OF AIR-COOLED TURBINE BLADES. Jack B. Esgar, Eugene F. Schum, and Arthur N. Curren. January 1957. 37p. diagrs., tabs. (NACA TN 3923)

(3.10.3)
RAM JETS

AIR-FLOW CHARACTERISTICS OF BRAZED AND ROLLED WIRE FILTER CLOTH FOR TRANSPIRATION-COOLED AFTERBURNERS. William K. Koffel. October 1953. 55p. diagrs., photos., tabs. (NACA RM E53H24)

(3.10.5)
ROCKETS

EXPERIMENTAL PERFORMANCE OF CHLORINE TRIFLUORIDE - HYDRAZINE PROPELLANT COMBINATION IN 100-POUND-THRUST ROCKET ENGINE. Paul M. Ordin and Riley O. Miller. August 15, 1949. 22p. diagrs., photos. (NACA RM E9F01)

INVESTIGATION OF INTERNAL FILM COOLING OF 1000-POUND-THRUST LIQUID-AMMONIA - LIQUID-OXYGEN ROCKET-ENGINE COMBUSTION CHAMBER. Gerald Morrell. July 1951. 42p. diagrs., photos., tabs. (NACA RM E51E04)

EXPERIMENTAL INVESTIGATION OF A LIGHTWEIGHT ROCKET CHAMBER. John E. Dalgleish and Adelbert O. Tischler. October 1956. 11p. photos. (NACA TN 3827. Supersedes RM E52L19a)

(3.11)
Properties of Gases

THEORETICAL PERFORMANCE OF DIBORANE AS A ROCKET FUEL. Vearl N. Huff, Clyde S. Calvert, and Virginia C. Erdmann. January 10, 1949. 31p. diagrs., tabs. (NACA RM E8I17a)

COMPRESSIBILITY FACTOR, DENSITY, SPECIFIC HEAT, ENTHALPY, ENTROPY, FREE-ENERGY FUNCTION, VISCOSITY, AND THERMAL CONDUCTIVITY OF STEAM. Lilla Fano, John H. Hubbell, and Charles W. Beckett, National Bureau of Standards. August 1956. 61p. diagrs., tabs. (NACA TN 3273)

RADIATION AND RECOVERY CORRECTIONS AND TIME CONSTANTS OF SEVERAL CHROMEL-ALUMEL THERMOCOUPLE PROBES IN HIGH-TEMPERATURE, HIGH-VELOCITY GAS STREAMS. George E. Glawe, Frederick S. Simmons, and Truman M. Stickney. October 1956. 25p. diagrs., photo., tabs. (NACA TN 3766)

EXPERIMENTAL STUDY OF HEAT TRANSFER TO SMALL CYLINDERS IN A SUBSONIC, HIGH-TEMPERATURE GAS STREAM. George E. Glawe and Robert C. Johnson. APPENDIX C: METHOD USED TO COMPUTE VISCOSITY AND THERMAL CONDUCTIVITY OF COMBUSTION GAS MIXTURES. Richard S. Brokaw and Robert C. Johnson. May 1957. 21p. diagrs., photo. (NACA TN 3934)

(3.11.1)
KINETIC

THEORETICAL PERFORMANCE OF LIQUID HYDROGEN AND LIQUID FLUORINE AS A ROCKET PROPELLANT. Sanford Gordon and Vearl N. Huff. February 1953. 28p. diagrs., tabs. (NACA RM E52L11)

THEORETICAL PERFORMANCE OF JP-4 FUEL AND LIQUID OXYGEN AS A ROCKET PROPELLANT. II - EQUILIBRIUM COMPOSITION. Vearl N. Huff, Anthony Fortini, and Sanford Gordon. September 1956. 47p. diagrs., tabs. (NACA RM E56D23)

THEORETICAL ROCKET PERFORMANCE OF JP-4 FUEL WITH MIXTURES OF LIQUID OZONE AND FLUORINE. Vearl N. Huff and Sanford Gordon. January 1957. 22p. diagrs., tabs. (NACA RM E56K14)

THEORETICAL PERFORMANCE OF LIQUID HYDROGEN AND LIQUID FLUORINE AS A ROCKET PROPELLANT FOR A CHAMBER PRESSURE OF 600 POUNDS PER SQUARE INCH ABSOLUTE. Anthony Fortini and Vearl N. Huff. January 1957. 38p. diagrs., tabs. (NACA RM E56L10a)

(3.11.2)
THERMODYNAMIC

METHOD FOR CALCULATING EFFECTS OF DISSOCIATION ON FLOW VARIABLES IN THE RELAXATION ZONE BEHIND NORMAL SHOCK WAVES. John S. Evans. December 1956. 52p. diagrs., tabs. (NACA TN 3860)

STEADY NUCLEAR COMBUSTION IN ROCKETS. (Stationäre Kernverbrennung in Raketen). E. Sänger. April 1957. 39p. diagrs., tab. (NACA TM 1405. Translation from Astronautica Acta, v.1, pt.2, 1955, p.61-88)

(3.12)
Accessories and Accessory Functions

(3.12.1)
FUEL SYSTEMS

PRESSURE LOSSES OF TITANIA AND MAGNESIUM SLURRIES IN PIPES AND PIPELINE TRANSITIONS. Ruth N. Weltmann and Thomas A. Keller. January 1957. 22p. diagrs., photo., tab. (NACA TN 3889)

(3.12.1.4)
TURBOJET ENGINES

ALTITUDE OPERATION OF GAS-TURBINE ENGINE WITH VARIABLE-AREA FUEL-NOZZLE SYSTEM. H. Gold and S. Rosenzweig. April 2, 1951. 41p. diagrs., photos. (NACA RM E51A04)

(3.12.1.8)
ROCKET ENGINES

EXPERIMENTAL PERFORMANCE OF CHLORINE TRIFLUORIDE - HYDRAZINE PROPELLANT COMBINATION IN 100-POUND-THRUST ROCKET ENGINE. Paul M. Ordin and Riley O. Miller. August 15, 1949. 22p. diagrs., photos. (NACA RM E9F01)

IGNITION DELAYS AND FLUID PROPERTIES OF SEVERAL FUELS AND NITRIC ACID OXIDANTS IN TEMPERATURE RANGE FROM 70° TO -105° F. Riley O. Miller. December 1956. 32p. diagrs., photos., tabs. (NACA TN 3884. Supersedes RM E51J11)

MATERIAL COMPATIBILITY WITH GASEOUS FLUORINE. Harold G. Price, Jr., and Howard W. Douglass. January 1957. 5p. tab. (NACA RM E56K21)

A STUDY OF SPRAYS FORMED BY TWO IMPINGING JETS. Marcus F. Heidmann, Richard J. Priem, and Jack C. Humphrey. March 1957. 32p. diagrs., photos., tab. (NACA TN 3835. Supersedes TN 2349)

(3.12.2)
IGNITION SYSTEMS

IGNITION-ENERGY REQUIREMENTS IN A SINGLE TUBULAR COMBUSTOR. Hampton H. Foster. March 27, 1951. 27p. diagrs., tab. (NACA RM E51A24)

EFFECT OF FUEL VOLATILITY CHARACTERISTICS ON IGNITION-ENERGY REQUIREMENTS IN A TURBOJET COMBUSTOR. Hampton H. Foster and David M. Straight. January 1953. 32p. diagrs., tab. (NACA RM E52J21)

PHOTOGRAPHIC STUDIES OF PREIGNITION ENVIRONMENT AND FLAME INITIATION IN TURBOJET-ENGINE COMBUSTORS. David M. Straight and J. Dean Gernon. February 1953. 40p. photos., diagrs. (NACA RM E52I11)

EVALUATION OF ETHYL ETHER AS AN IGNITION AID FOR TURBOJET ENGINE FUELS. Edmund R. Jonash and Hampton H. Foster. October 1953. 11p. diagrs., tab. (NACA RM E53I02)

(3.12.3)
STARTING SYSTEMS

PRELIMINARY RESULTS OF TURBOJET-ENGINE ALTITUDE-STARTING INVESTIGATION. H. D. Wilsted and J. C. Armstrong. November 1951. 25p. diagrs. (NACA RM E51H30)

(3.12.5)
COOLING SYSTEMS

A BALANCED-PRESSURE SLIDING SEAL FOR TRANSFER OF PRESSURIZED AIR BETWEEN STATIONARY AND ROTATING PARTS. Arthur N. Curren and Reeves P. Cochran. January 1957. 17p. diagrs. (NACA RM E56I11)

(3.13)
Vibration and Flutter

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF VARIOUS PARAMETERS INCLUDING TIP MACH NUMBER ON THE FLUTTER OF SOME MODEL HELICOPTER ROTOR BLADES. George W. Brooks and John E. Baker. June 1953. 68p. diagrs., photos., tabs. (NACA RM L53D24)

SOME FLUTTER EXPERIMENTS AT A MACH NUMBER OF 1.3 ON CANTILEVER WINGS WITH TUBULAR AND CLOSED BODIES AT THE TIPS. John Locke McCarty and W. J. Tuovila. October 1953. 17p. diagrs., tab. (NACA RM L53G10b)

EXPERIMENTAL DETERMINATION OF AERODYNAMIC FORCES NORMAL TO THE CHORD DUE TO ROTATING STALL ACTING ON COMPRESSOR BLADING. Donald F. Johnson and Eleanor L. Costilow. August 1954. 27p. diagrs., photos. (NACA RM E54F14)

(4)
AIRCRAFT LOADS AND CONSTRUCTION

(4.1)
Loads

NEAR NOISE FIELD OF A JET-ENGINE EXHAUST. II - CROSS CORRELATION OF SOUND PRESSURES. Edmund E. Callaghan, Walton L. Howes, and Willard D. Coles. Appendix: CORRELATION COMPUTER. Channing C. Conger and Donald F. Berg. September 1956. 53p. diagrs., photos., tab. (NACA TN 3764)

CRASH INJURY. Gerard J. Pesman and A. Martin Eiband. November 1956. 36p. diagrs., photos. (NACA TN 3775)

(4.1.1)
AERODYNAMIC

AERODYNAMICS OF SLENDER BODIES AT MACH NUMBER OF 3.12 AND REYNOLDS NUMBERS FROM 2×10^6 TO 15×10^6. I - BODY OF REVOLUTION WITH NEAR-PARABOLIC FOREBODY AND CYLINDRICAL AFTERBODY. John R. Jack and Warren C. Burgess. November 1951. 47p. diagrs., photos. (NACA RM E51H13)

AERODYNAMIC CHARACTERISTICS OF A SLENDER CONE-CYLINDER BODY OF REVOLUTION AT A MACH NUMBER OF 3.85. John R. Jack. November 1951. 24p. diagrs., photos. (NACA RM E51H17)

AERODYNAMIC LOAD MEASUREMENTS OVER A LEADING-EDGE SLAT ON A 40° SWEPTBACK WING AT MACH NUMBERS FROM 0.10 TO 0.91. Jones F. Cahill and Robert J. Nuber. September 1952. 32p. diagrs., photos., tab. (NACA RM L52G18a)

SUBSONIC STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A WING-BODY COMBINATION HAVING A POINTED WING OF ASPECT RATIO 2 WITH CONSTANT-PERCENT-CHORD TRAILING-EDGE ELEVONS. Donald W. Smith and Verlin D. Reed. May 1953. 143p. diagrs., photos., tab. (NACA RM A53C20)

A STUDY OF THE MOTION AND AERODYNAMIC HEATING OF MISSILES ENTERING THE EARTH'S ATMOSPHERE AT HIGH SUPERSONIC SPEEDS. H. Julian Allen and A. J. Eggers, Jr. August 1953. 62p. diagrs., photo. (NACA RM A53D28)

MEASUREMENTS OF FLUCTUATING PRESSURES ON THE WINGS AND BODY OF A SWEPTBACK WING-BODY COMBINATION IN THE LANGLEY 16-FOOT TRANSONIC TUNNEL. Louis W. Habel and Donald R. Bowman. September 1953. 24p. diagrs., photos. (NACA RM L53G06a)

FLIGHT TEST RESULTS OF ROCKET-PROPELLED BUFFET-RESEARCH MODELS HAVING 45° SWEPTBACK WINGS AND 45° SWEPTBACK TAILS LOCATED IN THE WING CHORD PLANE. Homer P. Mason. October 1953. 26p. diagrs., photos., tab. (NACA RM L53I10)

BUFFETING FORCES ON TWO-DIMENSIONAL AIRFOILS AS AFFECTED BY THICKNESS AND THICKNESS DISTRIBUTION. Charles F. Coe and Jack A. Mellenthin. February 1954. 26p. diagrs., photo. (NACA RM A53K24)

THE EFFECT OF A 4-PERCENT-HIGH SPOILER ON BUFFETING FORCES ON AN NACA $65_{(06)}$A004 TWO-DIMENSIONAL AIRFOIL AT SUBSONIC MACH NUMBERS. Jack A. Mellenthin. March 1955. 14p. diagrs., photos., tab. (NACA RM A54L22)

AN INVESTIGATION OF LOADS ON AILERONS AT TRANSONIC SPEEDS. Jack F. Runckel and W. H. Gray. May 1955. 8p. diagrs. (NACA RM L55E13)

RECENT STABILITY AND AERODYNAMIC PROBLEMS AND THEIR IMPLICATIONS AS TO LOAD ESTIMATION. Charles H. Zimmerman. June 1955. 12p. diagrs. (NACA RM L55E11a)

AERODYNAMIC INVESTIGATION OF A PARABOLIC BODY OF REVOLUTION AT MACH NUMBER OF 1.92 AND SOME EFFECTS OF AN ANNULAR SUPERSONIC JET EXHAUSTING FROM THE BASE. Eugene S. Love. September 1956. 62p. diagrs., photos., tab. (NACA TN 3709. Supersedes RM L9K09)

NEAR NOISE FIELD OF A JET-ENGINE EXHAUST. II - CROSS CORRELATION OF SOUND PRESSURES. Edmund E. Callaghan, Walton L. Howes, and Willard D. Coles. Appendix: CORRELATION COMPUTER. Channing C. Conger and Donald F. Berg. September 1956. 53p. diagrs., photos.. tab. (NACA TN 3764)

AEROELASTIC PROBLEMS OF AIRPLANE DESIGN. (Aeroelastische Probleme des Flugzeugbaus). H. G. Küssner. November 1956. 51p. tabs. (NACA TM 1402. Translation from Zeitschrift für Flugwissenschaften, v.3, no.1, January 1955, p.1-18)

SURVEY OF THE ACOUSTIC NEAR FIELD OF THREE NOZZLES AT A PRESSURE RATIO OF 30. Harold R. Mull and John C. Erickson, Jr. April 1957. 32p. diagrs., photos. (NACA TN 3978)

(4.1.1.1) WINGS

CONTROL EFFECTIVENESS AND HINGE-MOMENT CHARACTERISTICS OF A TIP CONTROL SURFACE ON A LOW-ASPECT-RATIO POINTED WING AT A MACH NUMBER OF 1.9. D. William Conner and Ellery B. May, Jr. October 5, 1949. 28p. diagrs., photo. (NACA RM L9H26)

FLIGHT INVESTIGATION AT MACH NUMBERS FROM 0.8 TO 1.4 TO DETERMINE THE ZERO-LIFT DRAG OF WINGS WITH "M" AND "W" PLAN FORMS. Ellis Katz, Edward T. Marley, and William B. Pepper. September 18, 1950. 23p. diagrs., photos., tab. (NACA RM L50G31)

TABULATED PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS MEASURED ON THE WING OF THE BELL X-1 AIRPLANE IN LEVEL FLIGHT AT MACH NUMBERS FROM 0.79 TO 1.00 AND IN A PULL-UP AT A MACH NUMBER OF 0.96. H. Arthur Carner and Mary M. Payne. September 18, 1950. 43p. diagrs., photo., tabs. (NACA RM L50H25)

EXPERIMENTAL PRESSURE DISTRIBUTIONS OVER TWO WING-BODY COMBINATIONS AT MACH NUMBER 1.9. Barry Moskowitz and Stephen H. Maslen. February 5, 1951. 31p. diagrs., photos. (NACA RM E50J09)

TABULATED PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS MEASURED ON THE WING OF THE BELL X-1 AIRPLANE IN AN UNACCELERATED LOW-SPEED STALL, IN PUSH-OVERS AT MACH NUMBERS OF 0.83 AND 0.99, AND IN A PULL-UP AT A MACH NUMBER OF 1.16. Ronald J. Knapp. September 1951. 53p. diagrs., photo., tabs. (NACA RM L51F25)

EXPERIMENTAL AND THEORETICAL STUDY OF THE EFFECTS OF BODY SIZE ON THE AERODYNAMIC CHARACTERISTICS OF AN ASPECT RATIO 3.0 WING-BODY COMBINATION. Edward J. Hopkins and Hubert C. Carel. October 1951. 52p. diagrs., photos., tabs. (NACA RM A51G24)

THE EFFECTS OF SUCTION THROUGH POROUS LEADING-EDGE SURFACES ON THE AERODYNAMIC CHARACTERISTICS OF A 47.5° SWEPTBACK WING-FUSELAGE COMBINATION AT A REYNOLDS NUMBER OF 4.4×10^6. Jerome Pasamanick and William I. Scallion. March 1952. 61p. diagrs., photo., tabs. (NACA RM L51K15)

TRANSONIC AERODYNAMIC CHARACTERISTICS OF THREE W-PLAN-FORM WINGS HAVING ASPECT RATIO 8, TAPER RATIO 0.45, AND NACA 63A-SERIES AIRFOIL SECTIONS. William D. Morrison, Jr. July 1952. 30p. diagrs., photo. (NACA RM L52E14a)

CONTROL HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF A 60° HALF-DELTA TIP CONTROL ON A 60° DELTA WING AT MACH NUMBERS OF 1.41 AND 1.96. Lawrence D. Guy. October 1952. 40p. diagrs., photo., tab. (NACA RM L52H13)

ROCKET-MODEL INVESTIGATION OF LONGITUDINAL STABILITY AND DRAG CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING A 60° DELTA WING AND A HIGH UNSWEPT HORIZONTAL TAIL. Robert F. Peck and Jesse L. Mitchell. January 1953. 28p. diagrs., photo. (NACA RM L52K04a)

EFFECTS OF WING ELASTICITY ON THE AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WINGS AS OBTAINED FROM FREE-FLIGHT ROCKET-MODEL TESTS AT TRANSONIC SPEEDS. A. James Vitale. January 1953. 49p. diagrs., photos., tab. (NACA RM L52L30)

INVESTIGATION OF SPOILERS AT A MACH NUMBER OF 1.93 TO DETERMINE THE EFFECTS OF HEIGHT AND CHORDWISE LOCATION ON THE SECTION AERODYNAMIC CHARACTERISTICS OF A TWO-DIMENSIONAL WING. James N. Mueller. March 1953. 52p. diagrs., photos. (NACA RM L52L31)

WING LOADS ON THE BELL X-1 RESEARCH AIRPLANE (10-PERCENT-THICK WING) AS DETERMINED BY PRESSURE-DISTRIBUTION MEASUREMENTS IN FLIGHT AT SUBSONIC AND TRANSONIC SPEEDS. Ronald J. Knapp and Gareth H. Jordan. November 1953. 35p. diagrs., photo., tab. (NACA RM L53G14)

THE TWISTING EFFECT AT TRANSONIC SPEEDS OF SPOILER AILERONS ON A 45° SWEPTBACK, ASPECT-RATIO-4, TAPERED WING. Alexander D. Hammond and Jean C. Graven, Jr. January 1954. 21p. diagrs., photo. (NACA RM L53K03a)

INVESTIGATION OF THE JET EFFECTS ON A FLAT SURFACE DOWNSTREAM OF THE EXIT OF A SIMULATED TURBOJET NACELLE AT A FREE-STREAM MACH NUMBER OF 2.02. Walter E. Bressette. June 1954. 38p. diagrs., photos., tab. (NACA RM L54E05a)

ON THE KERNEL FUNCTION OF THE INTEGRAL EQUATION RELATING THE LIFT AND DOWNWASH DISTRIBUTIONS OF OSCILLATING FINITE WINGS IN SUBSONIC FLOW. Charles E. Watkins, Harry L. Runyan and Donald S. Woolston. 1955. ii, 16p. tab. (NACA Rept. 1234. Supersedes TN 3131)

A LOW-SPEED INVESTIGATION OF A THIN 60° DELTA WING EQUIPPED WITH A DOUBLE SLOTTED FLAP TO DETERMINE THE CHORDWISE PRESSURE DISTRIBUTION AND THE EFFECT OF VANE SIZE. Delwin R. Croom. March 1955. 42p. diagrs., tabs. (NACA RM L54L03a)

THE UNSTEADY NORMAL-FORCE CHARACTERISTICS OF SELECTED NACA PROFILES AT HIGH SUBSONIC MACH NUMBERS. Perry P. Polentz, William A. Page, and Lionel L. Levy, Jr. May 1955. 110p. diagrs., photos., tab. (NACA RM A55C02)

AN INVESTIGATION OF JET EFFECTS ON ADJACENT SURFACES. Walter E. Bressette and Maxime A. Faget. June 1955. 13p. diagrs. (NACA RM L55E06)

ON THE KERNEL FUNCTION OF THE INTEGRAL EQUATION RELATING LIFT AND DOWNWASH DISTRIBUTIONS OF OSCILLATING WINGS IN SUPERSONIC FLOW. Charles E. Watkins and Julian H. Berman. 1956. ii, 18p. diagrs. (NACA Rept. 1257. Supersedes TN 3438)

THE INTERFERENCE EFFECTS OF A BODY ON THE SPANWISE LOAD DISTRIBUTIONS OF TWO 45° SWEPTBACK WINGS OF ASPECT RATIO 8.02 FROM LOW-SPEED TESTS. Albert P. Martina. August 1956. 47p. diagrs., photo., tabs. (NACA TN 3730. Supersedes RM L51K23)

COMPARISON OF CALCULATED AND EXPERIMENTAL LOAD DISTRIBUTIONS ON THIN WINGS AT HIGH SUBSONIC AND SONIC SPEEDS. John L. Crigler. January 1957. 46p. diagrs., tab. (NACA TN 3941)

LIFT AND MOMENT RESPONSES TO PENETRATION OF SHARP-EDGED TRAVELING GUSTS, WITH APPLICATION TO PENETRATION OF WEAK BLAST WAVES. Joseph A. Drischler and Franklin W. Diederich. May 1957. 85p. diagrs., tabs. (NACA TN 3956)

(4.1.1.1.1) Steady Loads

RESULTS OBTAINED DURING ACCELERATED TRANSONIC TESTS OF THE BELL XS-1 AIRPLANE IN FLIGHTS TO A MACH NUMBER OF 0.92. Hubert M. Drake, Milton D. McLaughlin, and Harold R. Goodman. April 19, 1948. 22p. diagrs., tab. (NACA RM L8A05a)

A COMPARISON OF THEORETICAL AND EXPERIMENTAL LOADING ON A 63° SWEPT-BACK WING AT SUPERSONIC SPEEDS. Victor I. Stevens and John W. Boyd. September 14, 1949. 21p. diagrs., photos. (NACA RM A9C16)

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF A WING SWEPT BACK 63° AND TWISTED AND CAMBERED FOR A UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.5. James A. Weiberg and Hubert C. Carel. May 9, 1950. .53p. diagrs., photos., tabs. (NACA RM A50A23)

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF A WING SWEPT BACK 63° AND TWISTED AND CAMBERED FOR UNIFORM LOAD AT A LIFT COEFFICIENT OF 0.5 AND WITH A THICKENED TIP SECTION. James A. Weiberg and Hubert C. Carel. November 21, 1950. 42p. diagrs., photo., tabs. (NACA RM A50I14)

A COMPARISON OF THE EXPERIMENTAL AND THEORETICAL LOADING OVER TRIANGULAR WINGS AT SUPERSONIC SPEEDS. John W. Boyd and E. Ray Phelps. January 3, 1951. 42p. diagrs., photos., tabs. (NACA RM A50J17)

EFFECTS OF REYNOLDS NUMBER ON THE AERODYNAMIC CHARACTERISTICS OF A DELTA WING AT MACH NUMBER OF 2.41. John E. Hatch, Jr., and L. Keith Hargrave. October 1951. 36p. diagrs., photos., tab. (NACA RM L51H06)

A COMPARISON OF THE CHORDWISE PRESSURE DISTRIBUTION AND SPANWISE DISTRIBUTION OF LOADING AT SUBSONIC SPEEDS ON TWO TRIANGULAR WINGS OF ASPECT RATIO 2 HAVING NACA 0005 AND 0008 SECTIONS. Donald W. Smith and Verlin D. Reed. May 1952. 142p. diagrs., photo., tabs. (NACA RM A51L21)

PRESSURE DISTRIBUTION AT LOW SPEED ON A MODEL INCORPORATING A W WING WITH ASPECT RATIO 6, 45° SWEEP, TAPER RATIO 0.6, AND AN NACA 65A009 AIRFOIL SECTION. Edward C. Polhamus and Albert G. Few, Jr. August 1952. 46p. diagrs., photo. (NACA RM L52F11)

INVESTIGATION AT A MACH NUMBER OF 1.2 OF TWO 45° SWEPTBACK WINGS UTILIZING NACA 2-006 AND NACA 65A006 AIRFOIL SECTIONS. Homer B. Wilson, Jr. September 1952. 20p. diagrs., photo., tab. (NACA RM L52G17)

STATIC AEROELASTIC PHENOMENA OF M-, W-, AND Λ-WINGS. Franklin W. Diederich and Kenneth A. Foss. February 1953. ii, 111p. diagrs., tabs. (NACA RM L52J21)

TRANSONIC CHARACTERISTICS OF A 45° SWEPTBACK WING-FUSELAGE COMBINATION. EFFECT OF LONGITUDINAL WING POSITION AND DIVISION OF WING AND FUSELAGE FORCES AND MOMENTS. Joseph M. Hallissy and Donald R. Bowman. February 1953. 39p. diagrs., photo. (NACA RM L52K04)

TRANSONIC AERODYNAMIC CHARACTERISTICS IN PITCH OF A W-WING HAVING 60° 48' PANEL SWEEP, ASPECT RATIO 3.5, AND TAPER RATIO 0.25. William D. Morrison, Jr. August 1953. 18p. diagrs., photo. (NACA RM L53F22)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A FENCE AND A LEADING-EDGE NOTCH ON THE AERODYNAMIC LOADING CHARACTERISTICS IN PITCH OF A 45° SWEPTBACK WING AT HIGH SUBSONIC SPEEDS. Richard E. Kuhn, James W. Wiggins, and Andrew L. Byrnes, Jr. October 1953. 56p. diagrs., photo., tabs. (NACA RM L53H24)

AERODYNAMIC CHARACTERISTICS OF A 68.4° DELTA WING AT MACH NUMBERS OF 1.6 AND 1.9 OVER A WIDE REYNOLDS NUMBER RANGE. John E. Hatch, Jr., and James J. Gallagher. November 1953. 44p. diagrs., photos., tabs. (NACA RM L53I08)

THE USE OF A LEADING-EDGE AREA-SUCTION FLAP TO DELAY SEPARATION OF AIR FLOW FROM THE LEADING EDGE OF A 35° SWEPTBACK WING. Curt A. Holzhauser and Robert K. Martin. December 1953. 42p. diagrs., photos., tabs. (NACA RM A53J26)

AERODYNAMIC CHARACTERISTICS IN PITCH OF THREE STRUCTURALLY SIMILAR FLEXIBLE WINGS WITH 45° SWEEP: A SWEPTBACK WING, A WING WITH M PLAN FORM, AND A WING WITH W PLAN FORM. John W. McKee, Delwin R. Croom, and Rodger L. Naeseth. December 1953. 43p. diagrs., photos. (NACA RM L53J02a)

PRESSURE DISTRIBUTIONS ON PLUG- AND SEMAPHORE-TYPE SPOILER AILERONS ON A 35° SWEPTBACK WING OF ASPECT RATIO 4, TAPER RATIO 0.6, AND NACA 65A006 AIRFOIL SECTION AT HIGH SUBSONIC SPEEDS. Alexander D. Hammond and William C. Hayes, Jr. August 1954. 55p. diagrs., tabs. (NACA RM L54F08)

AERODYNAMIC LOADING CHARACTERISTICS IN SIDESLIP OF A 45° SWEPTBACK WING WITH AND WITHOUT A FENCE AT HIGH SUBSONIC SPEEDS. Richard E. Kuhn and Andrew L. Byrnes, Jr. January 1955. 40p. diagrs., photo., tab. (NACA RM L54K15)

A CORRELATION OF AIRFOIL SECTION DATA WITH THE AERODYNAMIC LOADS MEASURED ON A 45° SWEPTBACK WING MODEL AT SUBSONIC MACH NUMBERS. Harold J. Walker and William C. Maillard. May 1955. 78p. diagrs., photo., tabs. (NACA RM A55C08)

FLIGHT MEASUREMENTS OF WING LOADS ON THE CONVAIR XF-92A DELTA-WING AIRPLANE. Albert E. Kuhl and Clinton T. Johnson. May 1955. 37p. diagrs., photos., tab. (NACA RM H55D12)

SIMPLIFIED PROCEDURES FOR ESTIMATING FLAP-CONTROL LOADS AT SUPERSONIC SPEEDS. K. R. Czarnecki and Douglas R. Lord. May 1955. 14p. diagrs. (NACA RM L55E12)

A STUDY OF THE APPLICATION OF AIRFOIL SECTION DATA TO THE ESTIMATION OF THE HIGH SUBSONIC SPEED CHARACTERISTICS OF SWEPT WINGS. Lynn W. Hunton. June 1955. 37p. diagrs., tab. (NACA RM A55C23)

ESTIMATION OF INCREMENTAL PITCHING MOMENTS DUE TO TRAILING-EDGE FLAPS ON SWEPT AND TRIANGULAR WINGS. Harry A. James and Lynn W. Hunton. June 1955. 31p. diagrs., tab. (NACA RM A55D07)

AERODYNAMIC CHARACTERISTICS AND PRESSURE DISTRIBUTIONS OF A 6-PERCENT-THICK 49° SWEPTBACK WING WITH BLOWING OVER HALF-SPAN AND FULL-SPAN FLAPS. Edward F. Whittle, Jr., and H. Clyde McLemore. September 1955. 71p. diagrs., photo., tabs. (NACA RM L55F02)

THEORETICAL SPAN LOAD DISTRIBUTIONS AND ROLLING MOMENTS FOR SIDESLIPPING WINGS OF ARBITRARY PLAN FORM IN INCOMPRESSIBLE FLOW. M. J. Queijo. 1956. ii, 15p. diagrs. (NACA Rept. 1269. Supersedes TN 3605)

THREE-DIMENSIONAL TRANSONIC FLOW THEORY APPLIED TO SLENDER WINGS AND BODIES. Max. A. Heaslet and John R. Spreiter. July 1956. 72p. diagrs. (NACA TN 3717)

SECTION CHARACTERISTICS OF THE NACA 0006 AIRFOIL WITH LEADING-EDGE AND TRAILING-EDGE FLAPS. Bruno J. Gambucci. December 1956. 17p. diagrs., photo., tabs. (NACA TN 3797)

(4.1.1.1.2) Maneuvering

RESULTS OBTAINED DURING A DIVE RECOVERY OF THE BELL XS-1 AIRPLANE TO HIGH LIFT COEFFICIENTS AT A MACH NUMBER GREATER THAN 1.0. Milton D. McLaughlin and Dorothy C. Clift. April 6, 1948. 6p. diagrs. (NACA RM L8C23a)

EFFECTS OF SPOILER ON AIRFOIL PRESSURE DISTRIBUTION AND EFFECTS OF SIZE AND LOCATION OF SPOILERS ON THE AERODYNAMIC CHARACTERISTICS OF A TAPERED UNSWEPT WING OF ASPECT RATIO 2.5 AT A MACH NUMBER OF 1.90. D. William Conner and Meade H. Mitchell, Jr. January 24, 1951. 33p. diagrs., photo. (NACA RM L50L20)

INVESTIGATION OF THE USE OF A STICK FORCE PROPORTIONAL TO PITCHING ACCELERATION FOR NORMAL-ACCELERATION WARNING. Marvin Abramovitz, Stanley F. Schmidt, and Rudolph D. Van Dyke, Jr. August 1953. 23p. diagrs., tab. (NACA RM A53E21)

FLIGHT INVESTIGATION OF THE EFFECTS OF HORIZONTAL-TAIL HEIGHT, MOMENT OF INERTIA, AND CONTROL EFFECTIVENESS ON THE PITCH-UP CHARACTERISTICS OF A 35° SWEPTWING FIGHTER AIRPLANE AT HIGH SUBSONIC SPEEDS. Norman M. McFadden and Donovan R. Heinle. January 1955. 24p. diagrs., photos., tab. (NACA RM A54F21)

FLIGHT MEASUREMENTS OF ELEVON HINGE MOMENTS ON THE XF-92A DELTA-WING AIRPLANE. Clinton T. Johnson and Albert E. Kuhl. January 1955. 26p. diagrs., photos., tab. (NACA RM H54J25a)

AERODYNAMIC LOADING CHARACTERISTICS IN SIDESLIP OF A 45° SWEPTBACK WING WITH AND WITHOUT A FENCE AT HIGH SUBSONIC SPEEDS. Richard E. Kuhn and Andrew L. Byrnes, Jr. January 1955. 40p. diagrs., photo., tab. (NACA RM L54K15)

FLIGHT MEASUREMENTS OF WING LOADS ON THE CONVAIR XF-92A DELTA-WING AIRPLANE. Albert E. Kuhl and Clinton T. Johnson. May 1955. 37p. diagrs., photos., tab. (NACA RM H55D12)

INITIAL RESULTS OF A FLIGHT INVESTIGATION OF THE WING AND TAIL LOADS ON AN AIRPLANE EQUIPPED WITH A VANE-CONTROLLED GUST-ALLEVIATION SYSTEM. T. V. Cooney and Russell L. Schott. September 1956. 31p. diagrs., photos. (NACA TN 3746)

AN ANALYSIS OF AIRSPEED, ALTITUDE, AND ACCELERATION DATA OBTAINED FROM A TWIN-ENGINE TRANSPORT AIRPLANE OPERATED OVER A FEEDER-LINE ROUTE IN THE ROCKY MOUNTAINS. Martin R. Copp and Mary W. Fetner. October 1956. 23p. diagrs., tabs. (NACA TN 3750)

(4.1.1.1.3) Gust Loads

A FLIGHT STUDY OF COMPRESSIBILITY EFFECTS ON THE GUST LOADS OF A 35° SWEPTBACK-WING AIRPLANE. Harry C. Mickleboro and Jack Funk. August 1954. 23p. diagrs., tabs. (NACA RM L54G09a)

FLIGHT MEASUREMENTS AT TRANSONIC SPEEDS OF THE BUFFETING CHARACTERISTICS OF THE XF-92A DELTA-WING RESEARCH AIRPLANE. Thomas F. Baker and Wallace E. Johnson. April 1955. 32p. diagrs., photos., tab. (NACA RM H54L03)

A REEVALUATION OF DATA ON ATMOSPHERIC TURBULENCE AND AIRPLANE GUST LOADS FOR APPLICATION IN SPECTRAL CALCULATIONS. Harry Press, May T. Meadows, and Ivan Hadlock. 1956. ii, 29p. diagrs., tabs. (NACA Rept. 1272. Supersedes TN 3362; TN 3540)

SUMMARY OF DERIVED GUST VELOCITIES OBTAINED FROM MEASUREMENTS WITHIN THUNDERSTORMS. H. B. Tolefson. 1956. ii, 7p. diagrs., tabs. (NACA Rept. 1285. Supersedes TN 3538)

AN INVESTIGATION OF VERTICAL-WIND-SHEAR INTENSITIES FROM BALLOON SOUNDINGS FOR APPLICATION TO AIRPLANE- AND MISSILE-RESPONSE PROBLEMS. H. B. Tolefson. July 1956. 33p. diagrs., tabs. (NACA TN 3732)

CALCULATION AND COMPILATION OF THE UNSTEADY-LIFT FUNCTIONS FOR A RIGID WING SUBJECTED TO SINUSOIDAL GUSTS AND TO SINUSOIDAL SINKING OSCILLATIONS. Joseph A. Drischler. October 1956. 59p. diagrs., tab. (NACA TN 3748)

AN ANALYSIS OF AIRSPEED, ALTITUDE, AND ACCELERATION DATA OBTAINED FROM A TWIN-ENGINE TRANSPORT AIRPLANE OPERATED OVER A FEEDER-LINE ROUTE IN THE ROCKY MOUNTAINS. Martin R. Copp and Mary W. Fetner. October 1956. 23p. diagrs., tabs. (NACA TN 3750)

FATIGUE-CRACK-PROPAGATION AND RESIDUAL-STATIC-STRENGTH RESULTS ON FULL-SCALE TRANSPORT-AIRPLANE WINGS. Richard E. Whaley, M. J. McGuigan, Jr., and D. F. Bryan. December 1956. 57p. diagrs., photos., tabs. (NACA TN 3847)

THEORETICAL CALCULATION OF THE POWER SPECTRA OF THE ROLLING AND YAWING MOMENTS ON A WING IN RANDOM TURBULENCE. John M. Eggleston and Franklin W. Diederich. December 1956. 56p. diagrs., tabs. (NACA TN 3864)

PRELIMINARY MEASUREMENTS OF ATMOSPHERIC TURBULENCE AT HIGH ALTITUDE AS DETERMINED FROM ACCELERATION MEASUREMENTS ON LOCKHEED U-2 AIRPLANE. Thomas L. Coleman and Jack Funk. March 1957. 14p. diagrs., tab. (NACA RM L57A11)

MEASUREMENTS OF LIFT FLUCTUATIONS DUE TO TURBULENCE. P. Lamson, California Institute of Technology. March 1957. 38p. diagrs. (NACA TN 3880)

THE RESPONSE OF AN AIRPLANE TO RANDOM ATMOSPHERIC DISTURBANCES. Franklin W. Diederich, California Institute of Technology. April 1957. ii, 95p. diagrs., tab. (NACA TN 3910)

EFFECT OF SPANWISE VARIATIONS IN GUST INTENSITY ON THE LIFT DUE TO ATMOSPHERIC TURBULENCE. Franklin W. Diederich and Joseph A. Drischler. April 1957. 56p. diagrs., tabs. (NACA TN 3920)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF RANDOM GUST LOADS. PART I - AERODYNAMIC TRANSFER FUNCTION OF A SIMPLE WING CONFIGURATION IN INCOMPRESSIBLE FLOW. Raimo J. Hakkinen and A. S. Richardson, Jr., Massachusetts Institute of Technology. May 1957. 64p. diagrs., photos. (NACA TN 3878)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF RANDOM GUST LOADS. PART II - THEORETICAL FORMULATION OF ATMOSPHERIC GUST RESPONSE PROBLEM. A. S. Richardson, Jr., Massachusetts Institute of Technology. May 1957. 50p. diagrs., tab. (NACA TN 3879)

A THEORY FOR THE LATERAL RESPONSE OF AIRPLANES TO RANDOM ATMOSPHERIC TURBULENCE. John M. Eggleston. May 1957. i, 75p. diagrs., tabs. (NACA TN 3954)

LIFT AND MOMENT RESPONSES TO PENETRATION OF SHARP-EDGED TRAVELING GUSTS, WITH APPLICATION TO PENETRATION OF WEAK BLAST WAVES. Joseph A. Drischler and Franklin W. Diederich. May 1957. 85p. diagrs., tabs. (NACA TN 3956)

CHARTS FOR ESTIMATING THE EFFECTS OF SHORT-PERIOD STABILITY CHARACTERISTICS ON AIRPLANE VERTICAL-ACCELERATION AND PITCH-ANGLE RESPONSE IN CONTINUOUS ATMOSPHERIC TURBULENCE. Kermit G. Pratt and Floyd V. Bennett. June 1957. 61p. diagrs., tabs. (NACA TN 3992)

INVESTIGATION AT TRANSONIC SPEEDS OF DEFLECTORS AND SPOILERS AS GUST ALLEVIATORS ON A 35° SWEPT WING. TRANSONIC-BUMP METHOD. Delwin R. Croom and Jarrett K. Huffman. June 1957. 19p. diagrs. (NACA TN 4006)

LOADS IMPLICATIONS OF GUST-ALLEVIATION SYSTEMS. William H. Phillips. June 1957. 11p. diagrs., tab. (NACA TN 4056)

INVESTIGATION AT LOW SPEEDS OF DEFLECTORS AND SPOILERS AS GUST ALLEVIATORS ON A MODEL OF THE BELL X-5 AIRPLANE WITH 35° SWEPT WINGS AND ON A HIGH-ASPECT-RATIO 35° SWEPT-WING–FUSELAGE MODEL. Delwin R. Croom and Jarrett K. Huffman. June 1957. 37p. diagrs., tab. (NACA TN 4057)

(4.1.1.1.4)
Buffeting Loads

A STUDY OF THE CORRELATION BETWEEN FLIGHT AND WIND-TUNNEL BUFFETING LOADS. Wilber B. Huston, A. Gerald Rainey, and Thomas F. Baker. July 1955. 15p. diagrs. (NACA RM L55E16b)

PROBABILITY AND FREQUENCY CHARACTERISTICS OF SOME FLIGHT BUFFET LOADS. Wilber B. Huston and T. H. Skopinski. August 1956. 52p. diagrs., tabs. (NACA TN 3733)

(4.1.1.2)
TAIL

HORIZONTAL-TAIL LOAD MEASUREMENTS AT TRANSONIC SPEEDS OF THE BELL X-1 RESEARCH AIRPLANE. John T. Rogers. September 1953. 23p. diagrs., photo., tab. (NACA RM L53F30)

THE TWISTING EFFECT AT TRANSONIC SPEEDS OF SPOILER AILERONS ON A 45° SWEPTBACK, ASPECT-RATIO-4, TAPERED WING. Alexander D. Hammond and Jean C. Graven, Jr. January 1954. 21p. diagrs., photo. (NACA RM L53K03a)

THEORETICAL CALCULATIONS OF THE PRESSURES, FORCES, AND MOMENTS AT SUPERSONIC SPEEDS DUE TO VARIOUS LATERAL MOTIONS ACTING ON THIN ISOLATED VERTICAL TAILS. Kenneth Margolis and Percy J. Bobbitt. 1956. ii, 44p. diagrs., tabs. (NACA Rept. 1268. Supersedes TN 3373; TN 3240)

AERODYNAMIC INTERFERENCE OF SLENDER WING-TAIL COMBINATIONS. Alvin H. Sacks. January 1957. 81p. diagrs., photos. (NACA TN 3725)

EXPERIMENTAL INVESTIGATION OF THE FORCES AND MOMENTS DUE TO SIDESLIP OF A SERIES OF TRIANGULAR VERTICAL- AND HORIZONTAL-TAIL COMBINATIONS AT MACH NUMBERS OF 1.62, 1.93, AND 2.41. Donald E. Coletti. March 1957. 32p. diagrs., photo., tabs. (NACA TN 3846. Supersedes RM L54G01)

(4.1.1.2.1)
Steady Loads

HORIZONTAL-TAIL LOAD MEASUREMENTS AT TRANSONIC SPEEDS OF THE BELL X-1 RESEARCH AIRPLANE. John T. Rogers. September 1953. 23p. diagrs., photo., tab. (NACA RM L53F30)

AN INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE PRESSURE DISTRIBUTIONS ON A 45° SWEPTBACK VERTICAL TAIL IN SIDESLIP WITH AND WITHOUT A 45° SWEPTBACK HORIZONTAL TAIL LOCATED ON THE FUSELAGE CENTER LINE. Harleth G. Wiley and William C. Moseley, Jr. November 1954. 81p. diagrs., photos., 7 tabs. (NACA RM L54H23)

INVESTIGATION AT HIGH SUBSONIC SPEEDS OF THE PRESSURE DISTRIBUTIONS ON A 45° SWEPTBACK VERTICAL TAIL IN SIDESLIP WITH A 45° SWEPTBACK HORIZONTAL TAIL MOUNTED AT 50-PERCENT AND 100-PERCENT VERTICAL-TAIL SPAN. Harleth G. Wiley and William C. Moseley, Jr. November 1954. 89p. diagrs., photos., tabs. (NACA RM L54I08)

THEORETICAL LIFT DUE TO WING INCIDENCE OF SLENDER WING-BODY-TAIL COMBINATIONS AT ZERO ANGLE OF ATTACK. Alvin H. Sacks. November 1956. 35p. diagrs. (NACA TN 3796)

TABLES OF CHARACTERISTIC FUNCTIONS FOR SOLVING BOUNDARY-VALUE PROBLEMS OF THE WAVE EQUATION WITH APPLICATION TO SUPERSONIC INTERFERENCE. Jack N. Nielsen. February 1957. 245p. diagrs., tabs. (NACA TN 3873)

(4.1.1.2.2) Maneuvering

HORIZONTAL-TAIL LOAD MEASUREMENTS AT TRANSONIC SPEEDS OF THE BELL X-1 RESEARCH AIRPLANE. John T. Rogers. September 1953. 23p. diagrs., photo., tab. (NACA RM L53F30)

AN ANALYTICAL STUDY OF SIDESLIP ANGLES AND VERTICAL-TAIL LOADS IN ROLLING PULL-OUTS AS AFFECTED BY SOME CHARACTERISTICS OF MODERN HIGH-SPEED AIRPLANE CONFIGURATIONS. Ralph W. Stone, Jr. October 1953. 41p. diagrs., tabs. (NACA RM L53G21)

FLIGHT INVESTIGATION OF THE EFFECTS OF HORIZONTAL-TAIL HEIGHT, MOMENT OF INERTIA, AND CONTROL EFFECTIVENESS ON THE PITCH-UP CHARACTERISTICS OF A 35° SWEPT-WING FIGHTER AIRPLANE AT HIGH SUBSONIC SPEEDS. Norman M. McFadden and Donovan R. Heinle. January 1955. 24p. diagrs., photos., tab. (NACA RM A54F21)

FLIGHT MEASUREMENTS OF THE VERTICAL-TAIL LOADS ON THE CONVAIR XF-92A DELTA-WING AIRPLANE. Clinton T. Johnson. October 1955. 23p. diagrs., photos., tab. (NACA RM H55H25)

INITIAL RESULTS OF A FLIGHT INVESTIGATION OF THE WING AND TAIL LOADS ON AN AIRPLANE EQUIPPED WITH A VANE-CONTROLLED GUST-ALLEVIATION SYSTEM. T. V. Cooney and Russell L. Schott. September 1956. 31p. diagrs., photos. (NACA TN 3746)

THEORETICAL INVESTIGATION OF THE EFFECT OF RUDDER AND STABILIZER DEFLECTIONS ON THE ANGLES OF ATTACK AND SIDESLIP IN RAPID ROLLS. C. H. Woodling. March 1957. 43p. diagrs., tabs. (NACA RM L57A30a)

(4.1.1.2.3) Buffeting and Gust

RESULTS OF PRELIMINARY FLIGHT TESTS OF THE XS-1 AIRPLANE (8-PERCENT WING) TO A MACH NUMBER OF 1.25. W. C. Williams and De E. Beeler. April 6, 1948. 14p. diagrs. (NACA RM L8A23a)

RESULTS OBTAINED DURING A DIVE RECOVERY OF THE BELL XS-1 AIRPLANE TO HIGH LIFT COEFFICIENTS AT A MACH NUMBER GREATER THAN 1.0. Milton D. McLaughlin and Dorothy C. Clift. April 6, 1948. 6p. diagrs. (NACA RM L8C23a)

RESULTS OBTAINED DURING ACCELERATED TRANSONIC TESTS OF THE BELL XS-1 AIRPLANE IN FLIGHTS TO A MACH NUMBER OF 0.92. Hubert M. Drake, Milton D. McLaughlin, and Harold R. Goodman. April 19, 1948. 22p. diagrs., tab. (NACA RM L8A05a)

BUFFETING OF A VERTICAL TAIL ON AN INCLINED BODY AT SUPERSONIC MACH NUMBERS. Forrest E. Gowen. March 1953. 35p. diagrs., photos., tab. (NACA RM A53A09)

FLIGHT TEST RESULTS OF ROCKET-PROPELLED BUFFET-RESEARCH MODELS HAVING 45° SWEPTBACK WINGS AND 45° SWEPTBACK TAILS LOCATED IN THE WING CHORD PLANE. Homer P. Mason. October 1953. 26p. diagrs., photos., tab. (NACA RM L53I10)

A PRELIMINARY STUDY BY MEANS OF ELECTRICAL FREQUENCY-ANALYSIS TECHNIQUES OF THE RESPONSE OF AN AIRPLANE STRUCTURE DURING BUFFETING. John E. Yeates, Jr., and Jim Rogers Thompson. December 1953. 41p. diagrs., tab. (NACA RM L53G31)

CALCULATED LATERAL FREQUENCY RESPONSE AND LATERAL OSCILLATORY CHARACTERISTICS FOR SEVERAL HIGH-SPEED AIRPLANES IN VARIOUS FLIGHT CONDITIONS. Byron M. Jaquet. December 1953. 72p. diagrs., tabs. (NACA RM L53J01)

A LIMITED ANALYSIS OF BUFFETING EXPERIENCE IN FLIGHT BY A NORTH AMERICAN F-86A-1 AIRPLANE WITH AND WITHOUT LARGE EXTERNAL FUEL TANKS. Jim Rogers Thompson, Thomas C. O'Bryan, and Max C. Kurbjun. September 1955. 40p. diagrs., photo. (NACA RM L54J22)

EFFECTS OF WING-MOUNTED TANK-TYPE STORES ON THE LOW-LIFT BUFFETING AND DRAG OF A SWEPT-WING AIRPLANE CONFIGURATION BETWEEN MACH NUMBERS OF 0.8 AND 1.3. Homer P. Mason. October 1955. 34p. diagrs., photos., tabs. (NACA RM L55D27)

A REEVALUATION OF DATA ON ATMOSPHERIC TURBULENCE AND AIRPLANE GUST LOADS FOR APPLICATION IN SPECTRAL CALCULATIONS. Harry Press, May T. Meadows, and Ivan Hadlock. 1956. ii, 29p. diagrs., tabs. (NACA Rept. 1272. Supersedes TN 3362; TN 3540)

PROBABILITY AND FREQUENCY CHARACTERISTICS OF SOME FLIGHT BUFFET LOADS. Wilber B. Huston and T. H. Skopinski. August 1956. 52p. diagrs., tabs. (NACA TN 3733)

AN INVESTIGATION OF THE LOADS ON THE VERTICAL TAIL OF A JET-BOMBER AIRPLANE RESULTING FROM FLIGHT THROUGH ROUGH AIR. Jack Funk and Richard H. Rhyne. October 1956. 36p. diagrs., tabs. (NACA TN 3741)

CALCULATION OF THE FORCES AND MOMENTS ON A SLENDER FUSELAGE AND VERTICAL FIN PENETRATING LATERAL GUSTS. John M. Eggleston. October 1956. 20p. diagrs., tab. (NACA TN 3805)

TURBULENCE IN THE WAKE OF A THIN AIRFOIL AT LOW SPEEDS. George S. Campbell, California Institute of Technology. January 1957. 63p. diagrs. (NACA TM 1427)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF RANDOM GUST LOADS. PART I - AERODYNAMIC TRANSFER FUNCTION OF A SIMPLE WING CONFIGURATION IN INCOMPRESSIBLE FLOW. Raimo J. Hakkinen and A. S. Richardson, Jr., Massachusetts Institute of Technology. May 1957. 64p. diagrs., photos. (NACA TN 3878)

A THEORY FOR THE LATERAL RESPONSE OF AIRPLANES TO RANDOM ATMOSPHERIC TURBULENCE. John M. Eggleston. May 1957. 1, 75p. diagrs., tabs. (NACA TN.3954)

(4.1.1.3) BODIES

A PRESSURE-DISTRIBUTION INVESTIGATION OF A SUPERSONIC AIRCRAFT FUSELAGE AND CALIBRATION OF THE MACH NUMBER 1.59 NOZZLE OF THE LANGLEY 4- BY 4-FOOT SUPERSONIC TUNNEL. Morton Cooper, Norman F. Smith, and Julian H. Kainer. July 29, 1949. 51p. diagrs., photos., tabs. (NACA RM L9E27a)

NOTE ON SOME OBSERVED EFFECTS OF ROCKET-MOTOR OPERATION ON THE BASE PRESSURES OF BODIES IN FREE FLIGHT. Paul E. Purser, Joseph G. Thibodaux, and H. Herbert Jackson. November 16, 1950. 28p. diagrs., tabs. (NACA RM L50I18)

EXPERIMENTAL PRESSURE DISTRIBUTIONS OVER TWO WING-BODY COMBINATIONS AT MACH NUMBER 1.9. Barry Moskowitz and Stephen H. Maslen. February 5, 1951. 31p. diagrs., photos. (NACA RM E50J09)

JET EFFECTS ON PRESSURES AND DRAGS OF BODIES. Warren Gillespie, Jr. November 1951. 12p. diagrs. (NACA RM L51J29)

PRESSURE DISTRIBUTION AT LOW SPEED ON A MODEL INCORPORATING A W WING WITH ASPECT RATIO 6, 45° SWEEP, TAPER RATIO 0.6, AND AN NACA 65A009 AIRFOIL SECTION. Edward C. Polhamus and Albert G. Few, Jr. August 1952. 46p. diagrs., photo. (NACA RM L52F11)

AN INVESTIGATION OF THREE NACA 1-SERIES NOSE INLETS AT SUBSONIC AND TRANSONIC SPEEDS. Robert E. Pendley, Joseph R. Milillo, and Frank F. Fleming. January 1953. 71p. diagrs., photos., tab. (NACA RM L52J23)

FLIGHT MEASUREMENTS OF PRESSURES ON BASE AND REAR PART OF FUSELAGE OF THE BELL X-1 RESEARCH AIRPLANE AT TRANSONIC SPEEDS, INCLUDING POWER EFFECTS. Ronald J. Knapp and Wallace E. Johnson. January 1953. 31p. diagrs., photos. (NACA RM L52L01)

AN EXPERIMENTAL STUDY OF FIVE ANNULAR AIR INLET CONFIGURATIONS AT SUBSONIC AND TRANSONIC SPEEDS. Robert E. Pendley, Joseph R. Milillo, Frank F. Fleming, and Carroll R. Bryan. August 1953. 86p. diagrs., tabs. (NACA RM L53F18a)

FLIGHT MEASUREMENT OF AERODYNAMIC LOADS AND MOMENTS ON AN EXTERNAL STORE MOUNTED UNDER THE WING OF A SWEPT-WING FIGHTER-TYPE AIRPLANE. Thomas C. O'Bryan. November 1953. 25p. diagrs., photo., tab. (NACA RM L53G22)

FUSELAGE PRESSURES MEASURED ON THE BELL X-1 RESEARCH AIRPLANE IN TRANSONIC FLIGHT. Ronald J. Knapp, Gareth H. Jordan, and Wallace E. Johnson. November 1953. 21p. diagrs., photo. (NACA RM L53I15)

EFFECTS OF EXTERNAL STORE MOUNTING ON THE BUFFET, TRIM, AND DRAG CHARACTERISTICS OF ROCKET-POWERED FUSELAGE AND STORE COMBINATIONS BETWEEN MACH NUMBERS OF 0.7 AND 1.4. Homer P. Mason. December 1953. 27p. diagrs., photos., tab. (NACA RM L53J22)

PRESSURES AND ASSOCIATED AERODYNAMIC AND LOAD CHARACTERISTICS FOR TWO BODIES OF REVOLUTION AT TRANSONIC SPEEDS. Harold L. Robinson. March 1954. 34p. diagrs., tab. (NACA RM L53L28a)

A FLIGHT INVESTIGATION AT TRANSONIC SPEEDS OF A MODEL HAVING A TRIANGULAR WING OF ASPECT RATIO 3. Maurice D. White. June 1955. 39p. diagrs., photos., tabs. (NACA RM A55D18)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE SUBSONIC-FLOW FIELDS BENEATH SWEPT AND UNSWEPT WINGS WITH TABLES OF VORTEX-INDUCED VELOCITIES. William J. Alford, Jr. August 1956. 91p. diagrs., photo., tabs. (NACA TN 3738)

THEORETICAL LIFT DUE TO WING INCIDENCE OF SLENDER WING-BODY-TAIL COMBINATIONS AT ZERO ANGLE OF ATTACK. Alvin H. Sacks. November 1956. 35p. diagrs. (NACA TN 3796)

AERODYNAMIC CHARACTERISTICS OF A CIRCULAR CYLINDER AT MACH NUMBER 6.86 AND ANGLES OF ATTACK UP TO 90°. Jim A. Penland. January 1957. 32p. diagrs., photos. (NACA TN 3861. Supersedes RM L54A14)

SIDEWASH IN THE VICINITY OF LIFTING SWEPT WINGS AT SUPERSONIC SPEEDS. Percy J. Bobbitt and Peter J. Maxie, Jr. February 1957. 49p. diagrs. (NACA TN 3938)

(4.1.1.4) ROTATING WINGS

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF VARIOUS PARAMETERS INCLUDING TIP MACH NUMBER ON THE FLUTTER OF SOME MODEL HELICOPTER ROTOR BLADES. George W. Brooks and John E. Baker. June 1953. 68p. diagrs., photos., tabs. (NACA RM L53D24)

STATIC-THRUST MEASUREMENTS OF THE AERODYNAMIC LOADING ON A HELICOPTER ROTOR BLADE. John P. Rabbott, Jr. July 1956. 22p. diagrs., photos. (NACA TN 3688)

EQUATIONS AND PROCEDURES FOR NUMERICALLY CALCULATING THE AERODYNAMIC CHARACTERISTICS OF LIFTING ROTORS. Alfred Gessow. October 1956. 21p. diagr., tab. (NACA TN 3747)

A THEORETICAL ESTIMATE OF THE EFFECTS OF COMPRESSIBILITY ON THE PERFORMANCE OF A HELICOPTER ROTOR IN VARIOUS FLIGHT CONDITIONS. Alfred Gessow and Almer D. Crim. October 1956. 33p. diagrs. (NACA TN 3798)

BAND-PASS SHOCK AND VIBRATION ABSORBERS FOR APPLICATION TO AIRCRAFT LANDING GEAR. Emanuel Schnitzer. October 1956. 27p. diagrs. (NACA TN 3803)

INVESTIGATION OF VERTICAL DRAG AND PERIODIC AIRLOADS ACTING ON FLAT PANELS IN A ROTOR SLIPSTREAM. Robert A. Makofski and George F. Menkick. December 1956. 23p. diagrs., photo. (NACA TN 3900)

LIFT AND MOMENT RESPONSES TO PENETRATION OF SHARP-EDGED TRAVELING GUSTS, WITH APPLICATION TO PENETRATION OF WEAK BLAST WAVES. Joseph A. Drischler and Franklin W. Diederich. May 1957. 85p. diagrs., tabs. (NACA TN 3956)

(4.1.1.5) AEROELASTICITY

AERODYNAMIC CHARACTERISTICS OF WINGS DESIGNED FOR STRUCTURAL IMPROVEMENTS. Joseph Weil and Edward C. Polhamus. May 28, 1951. 12p. diagrs. (NACA RM L51E10a)

EFFECTS OF WING ELASTICITY ON THE AERODYNAMIC CHARACTERISTICS OF AN AIRPLANE CONFIGURATION HAVING 45° SWEPTBACK WINGS AS OBTAINED FROM FREE-FLIGHT ROCKET-MODEL TESTS AT TRANSONIC SPEEDS. A. James Vitale. January 1953. 49p. diagrs., photos., tab. (NACA RM L52L30)

STATIC AEROELASTIC PHENOMENA OF M-, W-, AND Δ-WINGS. Franklin W. Diederich and Kenneth A. Foss. February 1953. ii, 111p. diagrs., tabs. (NACA RM L52J21)

FREE-FLIGHT LONGITUDINAL-STABILITY INVESTIGATION INCLUDING SOME EFFECTS OF WING ELASTICITY FROM MACH NUMBERS OF 0.85 TO 1.34 OF A TAILLESS MISSILE CONFIGURATION HAVING A 45° SWEPTBACK WING OF ASPECT RATIO 5.5. Richard G. Arbic and Warren Gillespie, Jr. August 1953. 30p. diagrs., photos., tabs. (NACA RM L53F18)

THE TWISTING EFFECT AT TRANSONIC SPEEDS OF SPOILER AILERONS ON A 45° SWEPTBACK, ASPECT-RATIO-4, TAPERED WING. Alexander D. Hammond and Jean C. Graven, Jr. January 1954. 21p. diagrs., photo. (NACA RM L53K03a)

EXPERIMENTAL INFLUENCE COEFFICIENTS FOR THE DEFLECTION OF THE WING OF A FULL-SCALE, SWEPT-WING BOMBER. Alton P. Mayo and John F. Ward. April 1954. 25p. diagrs., tabs. (NACA RM L53L23)

EXPERIMENTAL AND PREDICTED LONGITUDINAL RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. November 1954. 63p. diagrs., photo., tabs. (NACA RM A54H09)

FLIGHT INVESTIGATION AND ANALYSIS OF THE WING DEFORMATIONS OF A SWEPT-WING BOMBER DURING PUSH-PULL MANEUVERS. Alton P. Mayo and John F. Ward. April 1955. 34p. diagrs., photo., tabs. (NACA RM L54K24a)

CALCULATION AND COMPILATION OF THE UNSTEADY-LIFT FUNCTIONS FOR A RIGID WING SUBJECTED TO SINUSOIDAL GUSTS AND TO SINUSOIDAL SINKING OSCILLATIONS. Joseph A. Drischler. October 1956. 59p. diagrs., tab. (NACA TN 3748)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A WING-TANK CONFIGURATION OSCILLATING IN PITCH ABOUT THE WING MIDCHORD. Sherman A. Clevenson and Sumner A. Leadbetter. December 1956. 37p. diagrs., photo., tab. (NACA TN 3822)

EXPERIMENTAL AND PREDICTED LATERAL-DIRECTIONAL DYNAMIC-RESPONSE CHARACTERISTICS OF A LARGE FLEXIBLE 35° SWEPT-WING AIRPLANE AT AN ALTITUDE OF 35,000 FEET. Stuart C. Brown and Euclid C. Holleman. December 1956. 74p. diagrs., photo., tabs. (NACA TN 3874)

EXPERIMENTAL INVESTIGATION OF THE OSCILLATING FORCES AND MOMENTS ON A TWO-DIMENSIONAL WING EQUIPPED WITH AN OSCILLATING CIRCULAR-ARC SPOILER. Sherman A. Clevenson and John E. Tomassoni. March 1957. 20p. diagrs., photos. (NACA TN 3949. Supersedes RM L53K18)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF RANDOM GUST LOADS. PART II - THEORETICAL FORMULATION OF ATMOSPHERIC GUST RESPONSE PROBLEM. A. S. Richardson, Jr., Massachusetts Institute of Technology. May 1957. 50p. diagrs., tab. (NACA TN 3879)

(4.1.2) LANDING

(4.1.2.1) IMPACT

STATISTICAL MEASUREMENTS OF LANDING-CONTACT CONDITIONS OF A HEAVY BOMBER. Norman S. Silsby and Eziaslav N. Harrin. June 1955. 22p. diagrs., tabs. (NACA RM L55E03)

ON LANDING GEAR STRESSES. (Sur les Sollicitations des Atterrisseurs). A. Gentric. July 1956. 45p. diagrs., photos. (NACA TM 1422. Trans. from Docaéro, no.25, January 1954, p.17-38).

BAND-PASS SHOCK AND VIBRATION ABSORBERS FOR APPLICATION TO AIRCRAFT LANDING GEAR. Emanuel Schnitzer. October 1956. 27p. diagrs. (NACA TN 3803)

CRASH INJURY. Gerard J. Pesman and A. Martin Eiband. November 1956. 36p. diagrs., photos. (NACA TN 3775)

A SUMMARY OF GROUND-LOADS STATISTICS. John R. Westfall, Benjamin Milwitzky, Norman S. Silsby, and Robert C. Dreher. May 1957. 15p. diagrs. (NACA TN 4008)

(4.1.2.1.1) Land

AN EXPERIMENTAL STUDY OF APPLIED GROUND LOADS IN LANDING. Benjamin Milwitzky, Dean C. Lindquist, and Dexter M. Potter. 1955. ii, 34p. diagrs., photos., tab. (NACA Rept. 1248. Supersedes and extends TN 3246)

LANDING CONDITIONS FOR LARGE AIRPLANES IN ROUTINE OPERATIONS. Norman S. Silsby and Eziaslav N. Harrin. July 1955. 10p. diagrs. (NACA RM L55E18c)

EFFECT OF INTERACTION ON LANDING-GEAR BEHAVIOR AND DYNAMIC LOADS IN A FLEXIBLE AIRPLANE STRUCTURE. Francis E. Cook and Benjamin Milwitzky. 1956. ii, 30p. diagrs., tabs. (NACA Rept. 1278. Supersedes TN 3467)

ON LANDING GEAR STRESSES. (Sur les Sollicitations des Atterrisseurs). A. Gentric. July 1956. 45p. diagrs., photos. (NACA TM 1422. Trans. from Docaéro, no.25, January 1954, p.17-38).

VERTICAL FORCE-DEFLECTION CHARACTERISTICS OF A PAIR OF 56-INCH-DIAMETER AIRCRAFT TIRES FROM STATIC AND DROP TESTS WITH AND WITHOUT PREROTATION. Robert F. Smiley and Walter B. Horne. February 1957. 41p. diagrs., photo., tabs. (NACA TN 3909)

RECENT DATA ON TIRE FRICTION DURING LANDING. Sidney A. Batterson. June 1957. 7p. diagrs. (NACA RM L57D19b)

(4.1.2.1.2) Water

TANK INVESTIGATION OF THE GRUMMAN JRF-5 AIRPLANE FITTED WITH HYDRO-SKIS SUITABLE FOR OPERATION ON WATER, SNOW, AND ICE. Kenneth L. Wadlin and John A. Ramsen. June 12, 1950. 30p. diagrs., photos. (NACA RM L9K29)

COMPARISON OF EXPERIMENTAL HYDRODYNAMIC IMPACT LOADS AND MOTIONS FOR A V-STEP AND A TRANSVERSE-STEP HYDRO-SKI. Robert W. Miller. February 1954. 14p. diagrs., tabs. (NACA RM L53K20a)

WATER-IMPACT THEORY FOR AIRCRAFT EQUIPPED WITH NONTRIMMING HYDRO-SKIS MOUNTED ON SHOCK STRUTS. Emanuel Schnitzer. October 1954. 29p. diagrs. (NACA RM L54H10)

REDUCTION OF HYDRODYNAMIC IMPACT LOADS FOR WATERBORNE AIRCRAFT. Emanuel Schnitzer. July 1955. 17p. diagrs. (NACA RM L55E09b)

THEORETICAL DETERMINATION OF WATER LOADS ON PITCHING HULLS AND SHOCK-MOUNTED HYDRO-SKIS. Emanuel Schnitzer. October 1956. 65p. diagrs., tab. (NACA RM L56E31)

IMPACT-LOADS INVESTIGATION OF CHINE-IMMERSED MODELS HAVING CONCAVE-CONVEX TRANSVERSE SHAPE AND STRAIGHT OR CURVED KEEL LINES. Philip M. Edge, Jr. February 1957. 66p. diagrs., photos., tabs. (NACA TN 3940)

(4.1.2.2) GROUND-RUN

BAND-PASS SHOCK AND VIBRATION ABSORBERS FOR APPLICATION TO AIRCRAFT LANDING GEAR. Emanuel Schnitzer. October 1956. 27p. diagrs. (NACA TN 3803)

MEASUREMENTS OF RUNWAY ROUGHNESS OF FOUR COMMERCIAL AIRPORTS. Dexter M. Potter. January 1957. 86p. diagrs., tabs. (NACA RM L56I26)

A SUMMARY OF GROUND-LOADS STATISTICS. John R. Westfall, Benjamin Milwitzky, Norman S. Silsby, and Robert C. Dreher. May 1957. 15p. diagrs. (NACA TN 4008)

(4.1.2.2.1) Land

TESTS TO DETERMINE THE ADHESIVE POWER OF PASSENGER-CAR TIRES. (Versuche zur Feststellung des Haftvermögens von Personenwagen-Bereifungen). B. Förster. August 1956. 36p. diagrs., photos., tab. (NACA TM 1416. Trans. from Deutsche Kraftfahrtforschung, no. 22)

VERTICAL FORCE-DEFLECTION CHARACTERISTICS OF A PAIR OF 56-INCH-DIAMETER AIRCRAFT TIRES FROM STATIC AND DROP TESTS WITH AND WITHOUT PREROTATION. Robert F. Smiley and Walter B. Horne. February 1957. 41p. diagrs., photo., tabs. (NACA TN 3909)

RECENT DATA ON TIRE FRICTION DURING LANDING. Sidney A. Batterson. June 1957. 7p. diagrs. (NACA RM L57D19b)

SOME CONSIDERATIONS OF HYSTERESIS EFFECTS ON TIRE MOTION AND WHEEL SHIMMY. Robert F. Smiley. June 1957. 45p. diagrs. (NACA TN 4001)

(4.2)
Vibration and Flutter

FLIGHT INVESTIGATION OF FLUTTER MODELS WITH 1/10-SCALE DOUGLAS D-558-2 WING PANELS. Jerome M. Teitelbaum. February 16, 1949. 15p. diagrs., photos., tab. (NACA RM L9A06)

FLUTTER OF A 60° DELTA WING (NACA 65A003 AIRFOIL) ENCOUNTERED AT SUPERSONIC SPEEDS DURING THE FLIGHT TEST OF A ROCKET-PROPELLED MODEL. Joseph H. Judd and William T. Lauten, Jr. September 1952. 24p. diagrs., photos., tabs. (NACA RM L52E06a)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A RECTANGULAR WING OF ASPECT RATIO 2 OSCILLATING ABOUT THE MIDCHORD. Edward Widmayer, Jr., Sherman A. Clevenson, and Sumner A. Leadbetter. August 1953. 45p. diagrs., tabs. (NACA RM L53F19)

BUFFETING FORCES ON TWO-DIMENSIONAL AIRFOILS AS AFFECTED BY THICKNESS AND THICKNESS DISTRIBUTION. Charles F. Coe and Jack A. Mellenthin. February 1954. 26p. diagrs., photo. (NACA RM A53K24)

SUPERSONIC FLUTTER OF A 60° DELTA WING ENCOUNTERED DURING THE FLIGHT TEST OF A ROCKET-PROPELLED MODEL. William T. Lauten, Jr., and Joseph H. Judd. June 1954. 20p. diagrs., photos., tabs. (NACA RM L54D12a)

THE EFFECT OF A 4-PERCENT-HIGH SPOILER ON BUFFETING FORCES ON AN NACA $65_{(06)}$A004 TWO-DIMENSIONAL AIRFOIL AT SUBSONIC MACH NUMBERS. Jack A. Mellenthin. March 1955. 14p. diagrs., photos., tab. (NACA RM A54L22)

FLIGHT MEASUREMENTS AT TRANSONIC SPEEDS OF THE BUFFETING CHARACTERISTICS OF THE XF-92A DELTA-WING RESEARCH AIRPLANE. Thomas F. Baker and Wallace E. Johnson. April 1955. 32p. diagrs., photos., tab. (NACA RM H54L03)

THE EFFECTS OF FLEXIBILITY ON THE LONGITUDINAL AND LATERAL-DIRECTIONAL RESPONSE OF A LARGE AIRPLANE. Henry A. Cole, Jr., Stuart C. Brown, and Euclid C. Holleman. May 1955. 16p. diagrs. (NACA RM A55D14)

SOME DESIGN IMPLICATIONS OF THE EFFECTS OF AERODYNAMIC HEATING. Richard R. Heldenfels. July 1955. 26p. diagrs. (NACA RM L55F22)

A LIMITED ANALYSIS OF BUFFETING EXPERIENCE IN FLIGHT BY A NORTH AMERICAN F-86A-1 AIRPLANE WITH AND WITHOUT LARGE EXTERNAL FUEL TANKS. Jim Rogers Thompson, Thomas C. O'Bryan, and Max C. Kurbjun. September 1955. 40p. diagrs., photo. (NACA RM L54J22)

THEORETICAL DETERMINATION OF WATER LOADS ON PITCHING HULLS AND SHOCK-MOUNTED HYDRO-SKIS. Emanuel Schnitzer. October 1956. 65p. diagrs., tab. (NACA RM L56E31)

AEROELASTIC PROBLEMS OF AIRPLANE DESIGN. (Aeroelastische Probleme des Flugzeugbaus). H. G. Küssner. November 1956. 51p. tabs. (NACA TM 1402. Translation from Zeitschrift für Flugwissenschaften, v.3, no.1, January 1955, p.1-18)

SOME EXPERIMENTAL STUDIES OF PANEL FLUTTER AT MACH NUMBER 1.3. Maurice A. Sylvester and John E. Baker. February 1957. 25p. diagrs., photos., tab. (NACA TN 3914. Supersedes RM L52I16)

EXPERIMENTAL INVESTIGATION OF THE OSCILLATING FORCES AND MOMENTS ON A TWO-DIMENSIONAL WING EQUIPPED WITH AN OSCILLATING CIRCULAR-ARC SPOILER. Sherman A. Clevenson and John E. Tomassoni. March 1957. 20p. diagrs., photos. (NACA TN 3949. Supersedes RM L53K18)

EXPERIMENTAL INFLUENCE COEFFICIENTS AND VIBRATION MODES OF A BUILT-UP 45° DELTA-WING SPECIMEN. Eldon E. Kordes, Edwin T. Kruszewski, and Deene J. Weidman. May 1957. 41p. diagrs., photos., tabs. (NACA TN 3999)

THEORETICAL AND EXPERIMENTAL INVESTIGATIONS OF DELTA-WING VIBRATIONS. Edwin T. Kruszewski, Eldon E. Kordes, and Deene J. Weidman. June 1957. 11p. diagrs., photo., tab. (NACA TN 4015)

EFFECT OF TRANSIENT HEATING ON VIBRATION FREQUENCIES OF SOME SIMPLE WING STRUCTURES. Louis F. Vosteen, Robert R. McWithey, and Robert G. Thomson. June 1957. 10p. diagrs. (NACA TN 4054)

A WIDE-FREQUENCY-RANGE AIR-JET SHAKER. Robert W. Herr. June 1957. 15p. diagrs. (NACA TN 4060)

(4.2.1)
WINGS AND AILERONS

FLIGHT AND WIND-TUNNEL INVESTIGATION TO DETERMINE THE AILERON-VIBRATION CHARACTERISTICS OF 1/4-SCALE WING PANELS OF THE DOUGLAS D-558-2 RESEARCH AIRPLANE. Ellwyn E. Angle and Reginald R. Lundstrom. November 30, 1948. 27p. diagrs., photos., tabs. (NACA RM L8H09)

INITIAL FLUTTER TESTS IN THE LANGLEY TRANSONIC BLOWDOWN TUNNEL AND COMPARISON WITH FREE-FLIGHT FLUTTER RESULTS. William J. Bursnall. January 1953. 19p. diagrs., photos., tabs. (NACA RM L52K14)

RESULTS OF A ROCKET-MODEL INVESTIGATION OF CONTROL-SURFACE BUZZ AND FLUTTER ON A 4-PERCENT-THICK UNSWEPT WING AND ON 6-, 9-, AND 12-PERCENT-THICK SWEPT WINGS AT TRANSONIC SPEEDS. Allen B. Henning. November 1953. 33p. diagrs., photos., tabs. (NACA RM L53I29)

ON THE KERNEL FUNCTION OF THE INTEGRAL EQUATION RELATING THE LIFT AND DOWNWASH DISTRIBUTIONS OF OSCILLATING FINITE WINGS IN SUBSONIC FLOW. Charles E. Watkins, Harry L. Runyan and Donald S. Woolston. 1955. ii, 16p. tab. (NACA Rept. 1234. Supersedes TN 3131)

DEVELOPMENT OF A NEW FLUTTER TESTING TECHNIQUE USING A TOWED DYNAMIC AIRPLANE MODEL EQUIPPED WITH AN AUTOMATIC STABILIZING SYSTEM. EXPERIMENTAL AND CALCULATED DYNAMIC STABILITY CHARACTERISTICS FOR SPEEDS UP TO 200 MPH. William C. Schneider. March 1955. 50p. diagrs., photo., tabs. (NACA RM L54L23)

EXPERIMENTAL FLUTTER INVESTIGATION OF A THIN UNSWEPT WING AT TRANSONIC SPEEDS. George L. Pratt. April 1955. 24p. diagrs., tabs. (NACA RM L55A18)

ON THE KERNEL FUNCTION OF THE INTEGRAL EQUATION RELATING LIFT AND DOWNWASH DISTRIBUTIONS OF OSCILLATING WINGS IN SUPERSONIC FLOW. Charles E. Watkins and Julian H. Berman. 1956. ii, 18p. diagrs. (NACA Rept. 1257. Supersedes TN 3438)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE EFFECT OF TUNNEL WALLS ON THE FORCES ON AN OSCILLATING AIRFOIL IN TWO-DIMENSIONAL SUBSONIC COMPRESSIBLE FLOW. Harry L. Runyan, Donald S. Woolston, and A. Gerald Rainey. 1956. ii, 21p. diagrs. (NACA Rept. 1262. Supersedes TN 3416)

LIFT AND MOMENT COEFFICIENTS FOR AN OSCILLATING RECTANGULAR WING-AILERON CONFIGURATION IN SUPERSONIC FLOW. Julian H. Berman. July 1956. 46p. diagrs. (NACA TN 3644)

SAFEGUARDS AGAINST FLUTTER OF AIRPLANES. (Précautions a prendre pour éviter les vibrations aérodynamiques des avions. I - Voilure. II - Empennages). Gerhard De Vries. August 1956. 94p. diagrs. (NACA TM 1423. Trans. from: La Recherche Aéronautique, no.12, 1949, p.15-30. La Recherche Aéronautique, no.13, 1950, p.27-43)

METHOD FOR CALCULATING THE AERODYNAMIC LOADING ON AN OSCILLATING FINITE WING IN SUBSONIC AND SONIC FLOW. Harry L. Runyan and Donald S. Woolston. August 1956. 76p. diagrs., tabs. (NACA TN 3694)

FINITE SPAN WINGS IN COMPRESSIBLE FLOW. E. A. Krasilshchikova. September 1956. 130p. diagrs. (NACA TM 1383. From: Scientific Records of the Moscow State University, v.154, Mechanics nó.4, 1951, with appendix condensed from a document "Modern Problems of Mechanics, Govt. Pub. House of Tech. Theor. Literature, (Moscow, Leningrad) 1952.)

RESULTS OF TWO FREE-FALL EXPERIMENTS ON FLUTTER OF THIN UNSWEPT WINGS IN THE TRANSONIC SPEED RANGE. William T. Lauten, Jr., and Herbert C. Nelson. January 1957. 20p. diagrs., photo., tabs. (NACA TN 3902. Supersedes RM L51C08)

INCOMPRESSIBLE FLUTTER CHARACTERISTICS OF REPRESENTATIVE AIRCRAFT WINGS. C. H. Wilts, California Institute of Technology. April 1957. 121p. diagrs., tabs. (NACA TN 3780)

EXPERIMENTALLY DETERMINED NATURAL VIBRATION MODES OF SOME CANTILEVER-WING FLUTTER MODELS BY USING AN ACCELERATION METHOD. Perry W. Hanson and W. J. Tuovila. April 1957. 46p. diagrs., photo., tab. (NACA TN 4010)

(4.2.2)
TAILS

BUFFETING OF A VERTICAL TAIL ON AN INCLINED BODY AT SUPERSONIC MACH NUMBERS. Forrest E. Gowen. March 1953. 35p. diagrs., photos., tab. (NACA RM A53A09)

LONGITUDINAL STABILITY AND TRIM OF TWO ROCKET-PROPELLED AIRPLANE MODELS HAVING 45° SWEPTBACK WINGS AND TAILS WITH THE HORIZONTAL TAIL MOUNTED IN TWO POSITIONS. James H. Parks and Alan B. Kehlet. December 1953. 26p. diagrs., photos. (NACA RM L53J12a)

SAFEGUARDS AGAINST FLUTTER OF AIRPLANES. (Précautions a prendre pour éviter les vibrations aérodynamiques des avions. I - Voilure. II - Empennages). Gerhard-De Vries. August 1956. 94p. diagrs. (NACA TM 1423. Trans. from: La Recherche Aéronautique, no.12, 1949, p.15-30. La Recherche Aéronautique, no.13, 1950, p.27-43)

(4. 2. 2. 1)
ELEVATORS AND RUDDERS

SAFEGUARDS AGAINST FLUTTER OF AIRPLANES. (Précautions a prendre pour éviter les vibrations aérodynamiques des avions. I - Voilure. II - Empennages). Gerhard-De Vries. August 1956. 94p. diagrs. (NACA TM 1423. Trans. from: La Recherche Aéronautique, no.12, 1949, p.15-30. La Recherche Aéronautique, no.13, 1950, p.27-43)

(4. 2. 2. 2)
TABS

SAFEGUARDS AGAINST FLUTTER OF AIRPLANES. (Précautions a prendre pour éviter les vibrations aérodynamiques des avions. I - Voilure. II - Empennages). Gerhard-De Vries. August 1956. 94p. diagrs. (NACA TM 1423. Trans. from: La Recherche Aéronautique, no.12, 1949, p.15-30. La Recherche Aéronautique, no.13, 1950, p.27-43)

(4.2.3)
BODIES

BUFFETING OF A VERTICAL TAIL ON AN INCLINED BODY AT SUPERSONIC MACH NUMBERS. Forrest E. Gowen. March 1953. 35p. diagrs., photos., tab. (NACA RM A53A09)

RESULTS OF MEASUREMENTS OF MAXIMUM LIFT AND BUFFETING INTENSITIES OBTAINED DURING FLIGHT INVESTIGATION OF THE NORTHROP X-4 RESEARCH AIRPLANE. Thomas F. Baker. August 1953. 22p. diagrs., photos., tab. (NACA RM L53G06)

SOME FLUTTER EXPERIMENTS AT A MACH NUMBER OF 1.3 ON CANTILEVER WINGS WITH TUBULAR AND CLOSED BODIES AT THE TIPS. John Locke McCarty and W. J. Tuovila. October 1953. 17p. diagrs., tab. (NACA RM L53G10b)

AN AIR-FLOW-DIRECTION PICKUP SUITABLE FOR TELEMETERING USE ON PILOTLESS AIRCRAFT. Wallace L. Ikard. October 1956. 25p. diagrs., photos. (NACA TN 3799. Supersedes RM L53K16)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A WING-TANK CONFIGURATION OSCILLATING IN PITCH ABOUT THE WING MIDCHORD. Sherman A. Clevenson and Sumner A. Leadbetter. December 1956. 37p. diagrs., photo. tab. (NACA TN 3822)

(4.2.4)
PROPELLER, FANS, AND COMPRESSORS

EXPERIMENTAL DETERMINATION OF AERODYNAMIC FORCES NORMAL TO THE CHORD DUE TO ROTATING STALL ACTING ON COMPRESSOR BLADING. Donald F. Johnson and Eleanor L. Costilow. August 1954. 27p. diagrs., photos. (NACA RM E54F14)

AN ANALYSIS OF ONCE-PER-REVOLUTION OSCILLATING AERODYNAMIC THRUST LOADS ON SINGLE-ROTATION PROPELLERS ON TRACTOR AIRPLANES AT ZERO YAW. Vernon L. Rogallo, Paul F. Yaggy, and John L. McCloud, III. 1956. ii, 30p. diagrs., photos. (NACA Rept. 1295. Supersedes TN 3395)

THE EFFECTS OF COMPRESSIBILITY ON THE UPWASH AT THE PROPELLER PLANES OF A FOUR-ENGINE TRACTOR AIRPLANE CONFIGURATION HAVING A WING WITH 40^{0} OF SWEEPBACK AND AN ASPECT RATIO OF 10^{1}. Armando E. Lopez and Jerald K. Dickson. July 1956. 38p. diagrs., photos., tab. (NACA TN 3675. Supersedes RM A53A30a)

DIFFERENTIAL EQUATIONS OF MOTION FOR COMBINED FLAPWISE BENDING, CHORDWISE BENDING, AND TORSION OF TWISTED NONUNIFORM ROTOR BLADES. John C. Houbolt and George W. Brooks. February 1957. 47p. diagrs. (NACA TN 3905)

(4.2.5)
ROTATING-WING AIRCRAFT

AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF VARIOUS PARAMETERS INCLUDING TIP MACH NUMBER ON THE FLUTTER OF SOME MODEL HELICOPTER ROTOR BLADES. George W. Brooks and John E. Baker. June 1953. 68p. diagrs., photos., tabs. (NACA RM L53D24)

EQUATIONS AND PROCEDURES FOR NUMERICALLY CALCULATING THE AERODYNAMIC CHARACTERISTICS OF LIFTING ROTORS. Alfred Gessow. October 1956. 21p. diagr., tab. (NACA TN 3747)

ANALYTICAL DETERMINATION OF THE NATURAL COUPLED FREQUENCIES AND MODE SHAPES AND THE RESPONSE TO OSCILLATING FORCING FUNCTIONS OF TANDEM HELICOPTERS. George W. Brooks and John C. Houbolt. December 1956. 45p. diagrs., tabs. (NACA TN 3849)

FLIGHT MEASUREMENTS OF THE VIBRATIONS ENCOUNTERED BY A TANDEM HELICOPTER AND A METHOD FOR MEASURING THE COUPLED RESPONSE IN FLIGHT. John E. Yeates, Jr. December 1956. 28p. diagrs., photo., tab. (NACA TN 3852)

DETERMINATION OF THE STRUCTURAL DAMPING COEFFICIENTS OF SIX FULL-SCALE HELICOPTER ROTOR BLADES OF DIFFERENT MATERIALS AND METHODS OF CONSTRUCTION. Frederick W. Gibson. December 1956. 19p. diagrs., tab. (NACA TN 3862)

THEORY OF SELF-EXCITED MECHANICAL OSCILLATIONS OF HELICOPTER ROTORS WITH HINGED BLADES. Robert P. Coleman and Arnold M. Feingold. Chapter I: THEORY OF SELF-EXCITED MECHANICAL OSCILLATIONS OF HINGED ROTOR BLADES. Robert P. Coleman. Chapter II: THEORY OF MECHANICAL OSCILLATIONS OF ROTORS WITH TWO HINGED BLADES. Arnold M. Feingold. Chapter III: THEORY OF GROUND VIBRATIONS OF A TWO-BLADE HELICOPTER ROTOR ON ANISOTROPIC FLEXIBLE SUPPORTS (REVISED). Robert P. Coleman and Arnold M. Feingold. Appendix B: THE GENERAL EQUATIONS OF MOTION FOR TWO-BLADE ROTORS. George W. Brooks. February 1957. vii, 131p. diagrs. (NACA TN 3844. Supersedes ARR 3G29; WR L-308; ARR 3I13; WR L-312; TN 1184)

DIFFERENTIAL EQUATIONS OF MOTION FOR COMBINED FLAPWISE BENDING, CHORDWISE BENDING, AND TORSION OF TWISTED NONUNIFORM ROTOR BLADES. John C. Houbolt and George W. Brooks. February 1957. 47p. diagrs. (NACA TN 3905)

(4.2.6)
PANELS AND SURFACE COVERINGS

THEORETICAL INVESTIGATION OF FLUTTER OF TWO-DIMENSIONAL FLAT PANELS WITH ONE SURFACE EXPOSED TO SUPERSONIC POTENTIAL FLOW. Herbert C. Nelson and Herbert J. Cunningham. 1956. ii, 24p. diagrs., tabs. (NACA Rept. 1280. Supersedes TN 3465)

ON THE CONTRIBUTION OF TURBULENT BOUNDARY LAYERS TO THE NOISE INSIDE A FUSELAGE. G. M. Corcos and H. W. Liepmann, Douglas Aircraft Company, Inc. December 1956. (iii), 43p. diagrs. (NACA TM 1420)

(4.3)
Structures

SOME DESIGN IMPLICATIONS OF THE EFFECTS OF AERODYNAMIC HEATING. Richard R. Heldenfels. July 1955. 26p. diagrs. (NACA RM L55F22)

SEAT DESIGN FOR CRASH WORTHINESS. I. Irving Pinkel and Edmund G. Rosenberg. October 1956. 42p. diagrs., photos., tab. (NACA TN 3777)

(4.3.3)
PLATES

TORSIONAL INSTABILITY OF HINGED FLANGES STIFFENED BY LIPS AND BULBS. George Gerard, New York University. August 1956. 12p. diagrs. (NACA TN 3757)

EFFECT OF TRANSIENT HEATING ON VIBRATION FREQUENCIES OF SOME SIMPLE WING STRUCTURES. Louis F. Vosteen, Robert R. McWithey, and Robert G. Thomson. June 1957. 10p. diagrs. (NACA TN 4054)

(4.3.3.1)
FLAT

A STUDY OF THE EFFICIENCY OF HIGH-STRENGTH, STEEL, CELLULAR-CORE SANDWICH PLATES IN COMPRESSION. Aldie E. Johnson, Jr., and Joseph W. Semonian. September 1956. 26p. diagrs., tab. (NACA TN 3751)

THE COMBINATIONS OF THERMAL AND LOAD STRESSES FOR THE ONSET OF PERMANENT BUCKLING IN PLATES. George W. Zender and Richard A. Pride. June 1957. 10p. diagrs., photo. (NACA TN 4053)

(4.3.3.1.1)
Unstiffened

EXPERIMENTAL INVESTIGATION OF THE STRENGTH OF MULTIWEB BEAMS WITH CORRUGATED WEBS. Allister F. Fraser. October 1956. 17p. diagrs., photos., tabs. (NACA TN 3801)

ANALYSIS OF ELASTIC THERMAL STRESSES IN THIN PLATE WITH SPANWISE AND CHORDWISE VARIATIONS OF TEMPERATURE AND THICKNESS. Alexander Mendelson and Marvin Hirschberg. November 1956. 41p. diagrs. (NACA TN 3778)

(4.3.3.1.2)
Stiffened

AN ANALYSIS OF THE STABILITY AND ULTIMATE COMPRESSIVE STRENGTH OF SHORT SHEET-STRINGER PANELS WITH SPECIAL REFERENCE TO THE INFLUENCE OF THE RIVETED CONNECTION BETWEEN SHEET AND STRINGER. Joseph W. Semonian and James P. Peterson. 1956. ii, 18p. diagrs., photo., tab. (NACA Rept. 1255. Supersedes TN 3431)

STUDY OF SIZE EFFECT IN SHEET-STRINGER PANELS. J. P. Doman and Edward B. Schwartz, Naval Air Material Center. Appendix B: STATISTICAL ANALYSIS. Edward B. Schwartz. July 1956. 25p. diagrs., photos., tabs. (NACA TN 3756)

EFFECT OF AN INTERFACE ON TRANSIENT TEMPERATURE DISTRIBUTION IN COMPOSITE AIRCRAFT JOINTS. Martin E. Barzelay and George F. Holloway, Syracuse University. April 1957. 51p. diagrs., photo., tabs. (NACA TN 3824)

SOME RESEARCH RESULTS ON SANDWICH STRUCTURES. Melvin S. Anderson and Richard G. Updegraff. June 1957. 12p. diagrs., photos. (NACA TN 4009)

(4.3.3.2)
CURVED

(4.3.3.2.1)
Unstiffened

LARGE DEFLECTION OF CURVED PLATES. H. G. Lew, J. A. Fox, and T. T. Loo, Pennsylvania State University. October 1956. 38p. diagrs., tabs. (NACA TN 3684)

(4.3.4)
BEAMS

STRESS ANALYSIS OF CIRCULAR SEMIMONOCOQUE CYLINDERS WITH CUTOUTS. Harvey G. McComb, Jr. 1955. ii, 55p. diagrs., tabs. (NACA Rept. 1251. Supersedes TN 3199; TN 3200; TN 3460)

TORSIONAL STIFFNESS OF THIN-WALLED SHELLS HAVING REINFORCING CORES AND RECTANGULAR, TRIANGULAR, OR DIAMOND CROSS SECTION. Harvey G. McComb, Jr. October 1956. 35p. diagrs. (NACA TN 3749)

DIFFERENTIAL EQUATIONS OF MOTION FOR COMBINED FLAPWISE BENDING, CHORDWISE BENDING, AND TORSION OF TWISTED NONUNIFORM ROTOR BLADES. John C. Houbolt and George W. Brooks. February 1957. 47p. diagrs. (NACA TN 3905)

EFFECT OF TRANSIENT HEATING ON VIBRATION FREQUENCIES OF SOME SIMPLE WING STRUCTURES. Louis F. Vosteen, Robert R. McWithey, and Robert G. Thomson. June 1957. 10p. diagrs. (NACA TN 4054)

(4. 3. 4. 1)
BOX

FATIGUE-CRACK PROPAGATION IN ALUMINUM-ALLOY BOX BEAMS. Herbert F. Hardrath, Herbert A. Leybold, Charles B. Landers, and Louis W. Hauschild. August 1956. 33p. diagrs., photo. (NACA TN 3856)

EXPERIMENTAL INVESTIGATION OF THE STRENGTH OF MULTIWEB BEAMS WITH CORRUGATED WEBS. Allister F. Fraser. October 1956. 17p. diagrs., photos., tabs. (NACA TN 3801)

COMPARISON OF THEORETICAL STRESSES AND DEFLECTIONS OF MULTICELL WINGS WITH EXPERIMENTAL RESULTS OBTAINED FROM PLASTIC MODELS. George W. Zender. November 1956. 32p. diagrs., photos. (NACA TN 3813)

FATIGUE-CRACK PROPAGATION AND RESIDUAL STATIC STRENGTH OF BUILT-UP STRUCTURES. Herbert F. Hardrath and Richard E. Whaley. May 1957. 11p. diagrs. (NACA TN 4012)

EFFECTS OF RAPID HEATING ON STRENGTH OF AIRFRAME COMPONENTS. Richard A. Pride, John B. Hall, Jr., and Melvin S. Anderson. June 1957. 15p. diagrs., photos., tab. (NACA TN 4051)

TWO FACTORS INFLUENCING TEMPERATURE DISTRIBUTIONS AND THERMAL STRESSES IN STRUCTURES. William A. Brooks, Jr., George E. Griffith, and H. Kurt Strass. June 1957. 13p. diagrs. (NACA TN 4052)

(4.3.5)
SHELLS

TORSIONAL STIFFNESS OF THIN-WALLED SHELLS HAVING REINFORCING CORES AND RECTANGULAR, TRIANGULAR, OR DIAMOND CROSS SECTION. Harvey G. McComb, Jr. October 1956. 35p. diagrs. (NACA TN 3749)

ON THE THEORY OF ANISOTROPIC SHALLOW SHELLS. (K Teorii Anizotropnykh Pologikh Obolochek). S. A. Ambartsumyan. December 1956. 11p. tabs. (NACA TM 1424. Translation from Prikladnaia Matematika i Mekhanika, v. 12, 1948, p. 75-80)

ON THE CALCULATION OF SHALLOW SHELLS. (K Raschetu Pologikh Obolochek). S. A. Ambartsumyan. December 1956. 11p. diagr. (NACA TM 1425. Translation from Prikladnaia Matematika i Mekhanika, v. 11, 1947, p. 527-532)

ON THE THEORY OF THIN SHALLOW SHELLS. (K Teorií Tonkikh Pologikh Obolochek). A. A. Nazarov. December 1956. 7p. (NACA TM 1426. Translation from Prikladnaia Matematika i Mekhanika, v.13, 1949, p.547-550)

(4. 3. 5. 1)
CYLINDERS

COMPRESSIVE AND TORSIONAL BUCKLING OF THIN-WALL CYLINDERS IN YIELD REGION. George Gerard, New York University. August 1956. 42p. diagrs., tabs. (NACA TN 3726)

(4. 3. 5. 1. 1)
Circular

STRESS ANALYSIS OF CIRCULAR SEMIMONOCOQUE CYLINDERS WITH CUTOUTS. Harvey G. McComb, Jr. 1955. ii, 55p. diagrs., tabs. (NACA Rept. 1251. Supersedes TN 3199; TN 3200; TN 3460)

BENDING TESTS OF RING-STIFFENED CIRCULAR CYLINDERS. James P. Peterson. July 1956. 14p. diagrs., photos., tab. (NACA TN 3735)

FAILURE CHARACTERISTICS OF PRESSURIZED STIFFENED CYLINDERS. Roger W. Peters and Norris F. Dow. December 1956. 18p. diagrs., photos., tabs. (NACA TN 3851)

BURSTING STRENGTH OF UNSTIFFENED PRESSURE CYLINDERS WITH SLITS. Roger W. Peters and Paul Kuhn. April 1957. 21p. diagrs., photos., tabs. (NACA TN 3993)

SOME ASPECTS OF FAIL-SAFE DESIGN OF PRESSURIZED FUSELAGES. Paul Kuhn and Roger W. Peters. June 1957. 13p. diagrs. (NACA TN 4011)

EFFECTS OF RAPID HEATING ON STRENGTH OF AIRFRAME COMPONENTS. Richard A. Pride, John B. Hall, Jr., and Melvin S. Anderson. June 1957. 15p. diagrs., photos., tab. (NACA TN 4051)

(4. 3. 5. 2)
BOXES

COMPARISON OF THEORETICAL STRESSES AND DEFLECTIONS OF MULTICELL WINGS WITH EXPERIMENTAL RESULTS OBTAINED FROM PLASTIC MODELS. George W. Zender. November 1956. 32p. diagrs., photos. (NACA TN 3813)

(4.3.6)
CONNECTIONS

INTERACTION OF BEARING AND TENSILE LOADS ON CREEP PROPERTIES OF JOINTS. E. G. Bodine, R. L. Carlson, and G. K. Manning. Battelle Memorial Institute. October 1956. 23p. diagrs., photo. (NACA TN 3758)

EFFECT OF AN INTERFACE ON TRANSIENT TEMPERATURE DISTRIBUTION IN COMPOSITE AIRCRAFT JOINTS. Martin E. Barzelay and George F. Holloway, Syracuse University. April 1957. 51p. diagrs., photo., tabs. (NACA TN 3824)

(4. 3. 6. 1)
BOLTED

THE FATIGUE STRENGTH OF RIVETED JOINTS AND LUGS. (De vermoeiingssterkte van Klinkverbindingen en pengatverbindingen). J. Schijve. August 1956. 54p. diagrs., tabs. (NACA TM 1395. Trans. of Nationaal Luchtvaartlaboratorium, Rapport M.1952, May 1954)

(4. 3. 6. 2)
RIVETED

AN ANALYSIS OF THE STABILITY AND ULTIMATE COMPRESSIVE STRENGTH OF SHORT SHEET-STRINGER PANELS WITH SPECIAL REFERENCE TO THE INFLUENCE OF THE RIVETED CONNECTION BETWEEN SHEET AND STRINGER. Joseph W. Semonian and James P. Peterson. 1956. ii, 18p. diagrs., photo., tab. (NACA Rept. 1255. Supersedes TN 3431)

THE FATIGUE STRENGTH OF RIVETED JOINTS AND LUGS. (De vermoeiingssterkte van Klinkverbindingen en pengatverbindingen). J. Schijve. August 1956. 54p. diagrs., tabs. (NACA TM 1395. Trans. of Nationaal Luchtvaartlaboratorium, Rapport M.1952, May 1954)

FATIGUE-CRACK PROPAGATION IN ALUMINUM-ALLOY BOX BEAMS. Herbert F. Hardrath, Herbert A. Leybold, Charles B. Landers, and Louis W. Hauschild. August 1956. 33p. diagrs., photo. (NACA TN 3856)

EXPERIMENTAL INVESTIGATION OF THE STRENGTH OF MULTIWEB BEAMS WITH CORRUGATED WEBS. Allister F. Fraser. October 1956. 17p. diagrs., photos., tabs. (NACA TN 3801)

FATIGUE-CRACK-PROPAGATION AND RESIDUAL-STATIC-STRENGTH RESULTS ON FULL-SCALE TRANSPORT-AIRPLANE WINGS. Richard E. Whaley, M. J. McGuigan, Jr., and D. F. Bryan. December 1956. 57p. diagrs., photos., tabs. (NACA TN 3847)

CREEP BEHAVIOR OF STRUCTURAL JOINTS OF AIRCRAFT MATERIALS UNDER CONSTANT LOADS AND TEMPERATURES. Leonard Mordfin and Alvin C. Legate, National Bureau of Standards. January 1957. 53p. diagrs., tabs. (NACA TN 3842)

FATIGUE-CRACK PROPAGATION AND RESIDUAL STATIC STRENGTH OF BUILT-UP STRUCTURES. Herbert F. Hardrath and Richard E. Whaley. May 1957. 11p. diagrs. (NACA TN 4012)

(4. 3. 6. 3)
WELDED

CREEP BEHAVIOR OF STRUCTURAL JOINTS OF AIRCRAFT MATERIALS UNDER CONSTANT LOADS AND TEMPERATURES. Leonard Mordfin and Alvin C. Legate, National Bureau of Standards. January 1957. 53p. diagrs., tabs. (NACA TN 3842)

(4. 3. 6. 4)
BONDED

FATIGUE-CRACK PROPAGATION IN ALUMINUM-ALLOY BOX BEAMS. Herbert F. Hardrath, Herbert A. Leybold, Charles B. Landers, and Louis W. Hauschild. August 1956. 33p. diagrs., photo. (NACA TN 3856)

SHEAR STRENGTH AT 75° F TO 500° F OF FOURTEEN ADHESIVES USED TO BOND A GLASS-FABRIC-REINFORCED PHENOLIC RESIN LAMINATE TO STEEL. John R. Davidson. December 1956. 21p. diagrs., photo., tab. (NACA TN 3901)

FATIGUE-CRACK PROPAGATION AND RESIDUAL STATIC STRENGTH OF BUILT-UP STRUCTURES. Herbert F. Hardrath and Richard E. Whaley. May 1957. 11p. diagrs. (NACA TN 4012)

(4.3.7)
LOADS AND STRESSES

STRESS ANALYSIS OF CIRCULAR SEMIMONOCOQUE CYLINDERS WITH CUTOUTS. Harvey G. McComb, Jr. 1955. ii, 55p. diagrs., tabs. (NACA Rept. 1251. Supersedes TN 3199; TN 3200; TN 3460)

SOME DESIGN IMPLICATIONS OF THE EFFECTS OF AERODYNAMIC HEATING. Richard R. Heldenfels. July 1955. 26p. diagrs. (NACA RM L55F22)

COMPRESSIVE AND TORSIONAL BUCKLING OF THIN-WALL CYLINDERS IN YIELD REGION. George Gerard, New York University. August 1956. 42p. diagrs., tabs. (NACA TN 3726)

ANALYSIS OF ELASTIC THERMAL STRESSES IN THIN PLATE WITH SPANWISE AND CHORDWISE VARIATIONS OF TEMPERATURE AND THICKNESS. Alexander Mendelson and Marvin Hirschberg. November 1956. 41p. diagrs. (NACA TN 3778)

EXPERIMENTAL INFLUENCE COEFFICIENTS AND VIBRATION MODES OF A BUILT-UP 45° DELTA-WING SPECIMEN. Eldon E. Kordes, Edwin T. Kruszewski, and Deene J. Weidman. May 1957. 41p. diagrs., photos., tabs. (NACA TN 3999)

A VARIATIONAL THEOREM FOR CREEP WITH APPLICATIONS TO PLATES AND COLUMNS. J. Lyell Sanders, Jr., Harvey G. McComb, Jr., and Floyd R. Schlechte. May 1957. 23p. diagrs. (NACA TN 4003)

THEORETICAL AND EXPERIMENTAL INVESTIGATIONS OF DELTA-WING VIBRATIONS. Edwin T. Kruszewski, Eldon E. Kordes, and Deene J. Weidman. June 1957. 11p. diagrs., photo., tab. (NACA TN 4015)

TWO FACTORS INFLUENCING TEMPERATURE DISTRIBUTIONS AND THERMAL STRESSES IN STRUCTURES. William A. Brooks, Jr., George E. Griffith, and H. Kurt Strass. June 1957. 13p. diagrs. (NACA TN 4052)

EFFECT OF TRANSIENT HEATING ON VIBRATION FREQUENCIES OF SOME SIMPLE WING STRUCTURES. Louis F. Vosteen, Robert R. McWithey, and Robert G. Thomson. June 1957. 10p. diagrs. (NACA TN 4054)

(4.3.7.1) TENSION

FATIGUE-CRACK PROPAGATION AND RESIDUAL STATIC STRENGTH OF BUILT-UP STRUCTURES. Herbert F. Hardrath and Richard E. Whaley. May 1957. 11p. diagrs. (NACA TN 4012)

(4.3.7.2) COMPRESSION

AN ANALYSIS OF THE STABILITY AND ULTIMATE COMPRESSIVE STRENGTH OF SHORT SHEET-STRINGER PANELS WITH SPECIAL REFERENCE TO THE INFLUENCE OF THE RIVETED CONNECTION BETWEEN SHEET AND STRINGER. Joseph W. Semonian and James P. Peterson. 1956. ii, 18p. diagrs., photo., tab. (NACA Rept. 1255. Supersedes TN 3431)

STUDY OF SIZE EFFECT IN SHEET-STRINGER PANELS. J. P. Doman and Edward B. Schwartz, Naval Air Material Center. Appendix B: STATISTICAL ANALYSIS. Edward B. Schwartz. July 1956. 25p. diagrs., photos., tabs. (NACA TN 3756)

TORSIONAL INSTABILITY OF HINGED FLANGES STIFFENED BY LIPS AND BULBS. George Gerard, New York University. August 1956. 12p. diagrs. (NACA TN 3757)

A STUDY OF THE EFFICIENCY OF HIGH-STRENGTH, STEEL, CELLULAR-CORE SANDWICH PLATES IN COMPRESSION. Aldie E. Johnson, Jr., and Joseph W. Semonian. September 1956. 26p. diagrs., tab. (NACA TN 3751)

LARGE DEFLECTION OF CURVED PLATES. H. G. Lew, J. A. Fox, and T. T. Loo, Pennsylvania State University. October 1956. 38p. diagrs., tabs. (NACA TN 3684)

SOME RESEARCH RESULTS ON SANDWICH STRUCTURES. Melvin S. Anderson and Richard G. Updegraff. June 1957. 12p. diagrs., photos. (NACA TN 4009)

THE COMBINATIONS OF THERMAL AND LOAD STRESSES FOR THE ONSET OF PERMANENT BUCKLING IN PLATES. George W. Zender and Richard A. Pride. June 1957. 10p. diagrs., photo. (NACA TN 4053)

(4.3.7.3) BENDING

FLIGHT INVESTIGATION AND ANALYSIS OF THE WING DEFORMATIONS OF A SWEPT-WING BOMBER DURING PUSH-PULL MANEUVERS. Alton P. Mayo and John F. Ward. April 1955. 34p. diagrs., photo., tabs. (NACA RM L54K24a)

BENDING TESTS OF RING-STIFFENED CIRCULAR CYLINDERS. James P. Peterson. July 1956. 14p. diagrs., photos., tab. (NACA TN 3735)

EXPERIMENTAL INVESTIGATION OF THE STRENGTH OF MULTIWEB BEAMS WITH CORRUGATED WEBS. Allister F. Fraser. October 1956. 17p. diagrs., photos., tabs. (NACA TN 3801)

COMPARISON OF THEORETICAL STRESSES AND DEFLECTIONS OF MULTICELL WINGS WITH EXPERIMENTAL RESULTS OBTAINED FROM PLASTIC MODELS. George W. Zender. November 1956. 32p. diagrs., photos. (NACA TN 3813)

FATIGUE-CRACK PROPAGATION AND RESIDUAL STATIC STRENGTH OF BUILT-UP STRUCTURES. Herbert F. Hardrath and Richard E. Whaley. May 1957. 11p. diagrs. (NACA TN 4012)

EFFECTS OF RAPID HEATING ON STRENGTH OF AIRFRAME COMPONENTS. Richard A. Pride, John B. Hall, Jr., and Melvin S. Anderson. June 1957. 15p. diagrs., photos., tab. (NACA TN 4051)

(4. 3. 7. 4) TORSION

TORSIONAL STIFFNESS OF THIN-WALLED SHELLS HAVING REINFORCING CORES AND RECTANGULAR, TRIANGULAR, OR DIAMOND CROSS SECTION. Harvey G. McComb, Jr. October 1956. 35p. diagrs. (NACA TN 3749)

COMPARISON OF THEORETICAL STRESSES AND DEFLECTIONS OF MULTICELL WINGS WITH EXPERIMENTAL RESULTS OBTAINED FROM PLASTIC MODELS. George W. Zender. November 1956. 32p. diagrs., photos. (NACA TN 3813)

(4. 3. 7. 5) SHEAR

SHEAR STRENGTH AT 75° F TO 500° F OF FOURTEEN ADHESIVES USED TO BOND A GLASS-FABRIC-REINFORCED PHENOLIC RESIN LAMINATE TO STEEL. John R. Davidson. December 1956. 21p. diagrs., photo., tab. (NACA TN 3901)

(4. 3. 7. 6) CONCENTRATED

EXPERIMENTAL INFLUENCE COEFFICIENTS FOR THE DEFLECTION OF THE WING OF A FULL-SCALE, SWEPT-WING BOMBER. Alton P. Mayo and John F. Ward. April 1954. 25p. diagrs., tabs. (NACA RM L53L23)

FATIGUE-CRACK PROPAGATION IN ALUMINUM-ALLOY BOX BEAMS. Herbert F. Hardrath, Herbert A. Leybold, Charles B. Landers, and Louis W. Hauschild. August 1956. 33p. diagrs., photo. (NACA TN 3856)

STATIC STRENGTH OF ALUMINUM-ALLOY SPECIMENS CONTAINING FATIGUE CRACKS. Arthur J. McEvily, Jr., Walter Illg, and Herbert F. Hardrath. October 1956. 54p. diagrs., photos., tabs. (NACA TN 3816. Supersedes RM L55D15a)

FATIGUE-CRACK-PROPAGATION AND RESIDUAL-STATIC-STRENGTH RESULTS ON FULL-SCALE TRANSPORT-AIRPLANE WINGS. Richard E. Whaley, M. J. McGuigan, Jr., and D. F. Bryan. December 1956. 57p. diagrs., photos., tabs. (NACA TN 3847)

STATIC STRENGTH OF CROSS-GRAIN 7075-T6 ALUMINUM-ALLOY EXTRUDED BAR CONTAINING FATIGUE CRACKS. Walter Illg and Arthur J. McEvily, Jr. April 1957. 25p. diagrs., photos., tabs. (NACA TN 3994)

FATIGUE-CRACK PROPAGATION AND RESIDUAL STATIC STRENGTH OF BUILT-UP STRUCTURES. Herbert F. Hardrath and Richard E. Whaley. May 1957. 11p. diagrs. (NACA TN 4012)

(4. 3. 7. 7) DYNAMIC

AN EXPERIMENTAL STUDY OF APPLIED GROUND LOADS IN LANDING. Benjamin Milwitzky, Dean C. Lindquist, and Dexter M. Potter. 1955. ii, 34p. diagrs., photos., tab. (NACA Rept. 1248. Supersedes and extends TN 3246)

A STUDY OF THE CORRELATION BETWEEN FLIGHT AND WIND-TUNNEL BUFFETING LOADS. Wilber B. Huston, A. Gerald Rainey, and Thomas F. Baker. July 1955. 15p. diagrs. (NACA RM L55E16b)

A LIMITED ANALYSIS OF BUFFETING EXPERIENCE IN FLIGHT BY A NORTH AMERICAN F-86A-1 AIRPLANE WITH AND WITHOUT LARGE EXTERNAL FUEL TANKS. Jim Rogers Thompson, Thomas C. O'Bryan, and Max C. Kurbjun. September 1955. 40p. diagrs., photo. (NACA RM L54J22)

ON LANDING GEAR STRESSES. (Sur les Sollicitations des Atterrisseurs). A. Gentric. July 1956. 45p. diagrs., photos. (NACA TM 1422. Trans. from Docaéro, no.25, January 1954, p.17-38).

COMPARISON OF SEVERAL METHODS FOR OBTAINING THE TIME RESPONSE OF LINEAR SYSTEMS TO EITHER A UNIT IMPULSE OR ARBITRARY INPUT FROM FREQUENCY-RESPONSE DATA. James J. Donegan and Carl R. Huss. July 1956. 39p. diagrs., tabs. (NACA TN 3701)

PROBABILITY AND FREQUENCY CHARACTERISTICS OF SOME FLIGHT BUFFET LOADS. Wilber B. Huston and T. H. Skopinski. August 1956. 52p. diagrs., tabs. (NACA TN 3733)

INITIAL RESULTS OF A FLIGHT INVESTIGATION OF THE WING AND TAIL LOADS ON AN AIRPLANE EQUIPPED WITH A VANE-CONTROLLED GUST-ALLEVIATION SYSTEM. T. V. Cooney and Russell L. Schott. September 1956. 31p. diagrs., photos. (NACA TN 3746)

SEAT DESIGN FOR CRASH WORTHINESS. I. Irving Pinkel and Edmund G. Rosenberg. October 1956. 42p. diagrs., photos., tab. (NACA TN 3777)

ANALYTICAL DETERMINATION OF THE NATURAL COUPLED FREQUENCIES AND MODE SHAPES AND THE RESPONSE TO OSCILLATING FORCING FUNCTIONS OF TANDEM HELICOPTERS. George W. Brooks and John C. Houbolt. December 1956. 45p. diagrs., tabs. (NACA TN 3849)

DIFFERENTIAL EQUATIONS OF MOTION FOR COMBINED FLAPWISE BENDING, CHORDWISE BENDING, AND TORSION OF TWISTED NONUNIFORM ROTOR BLADES. John C. Houbolt and George W. Brooks. February 1957. 47p. diagrs. (NACA TN 3905)

THE RESPONSE OF AN AIRPLANE TO RANDOM ATMOSPHERIC DISTURBANCES. Franklin W. Diederich, California Institute of Technology. April 1957. ii, 95p. diagrs., tab. (NACA TN 3910)

EXPERIMENTALLY DETERMINED NATURAL VIBRATION MODES OF SOME CANTILEVER-WING FLUTTER MODELS BY USING AN ACCELERATION METHOD. Perry W. Hanson and W. J. Tuovila. April 1957. 46p. diagrs., photo., tab. (NACA TN 4010)

(4.3.7.7.1)
Repeated

A REEVALUATION OF DATA ON ATMOSPHERIC TURBULENCE AND AIRPLANE GUST LOADS FOR APPLICATION IN SPECTRAL CALCULATIONS. Harry Press, May T. Meadows, and Ivan Hadlock. 1956. ii, 29p. diagrs., tabs. (NACA Rept. 1272. Supersedes TN 3362; TN 3540)

THE FATIGUE STRENGTH OF RIVETED JOINTS AND LUGS. (De vermoeiingssterkte van Klinkverbindingen en pengatverbindingen). J. Schijve. August 1956. 54p. diagrs., tabs. (NACA TM 1395. Trans. of Nationaal Luchtvaartlaboratorium, Rapport M.1952, May 1954)

FATIGUE-CRACK PROPAGATION IN ALUMINUM-ALLOY BOX BEAMS. Herbert F. Hardrath, Herbert A. Leybold, Charles B. Landers, and Louis W. Hauschild. August 1956. 33p. diagrs., photo. (NACA TN 3856)

BAND-PASS SHOCK AND VIBRATION ABSORBERS FOR APPLICATION TO AIRCRAFT LANDING GEAR. Emanuel Schnitzer. October 1956. 27p. diagrs. (NACA TN 3803)

FATIGUE-CRACK-PROPAGATION AND RESIDUAL-STATIC-STRENGTH RESULTS ON FULL-SCALE TRANSPORT-AIRPLANE WINGS. Richard E. Whaley, M. J. McGuigan, Jr., and D. F. Bryan. December 1956. 57p. diagrs., photos., tabs. (NACA TN 3847)

STATIC STRENGTH OF ALUMINUM-ALLOY SPECIMENS CONTAINING FATIGUE CRACKS. Arthur J. McEvily, Jr., Walter Illg, and Herbert F. Hardrath. October 1956. 54p. diagrs., photos., tabs. (NACA TN 3816. Supersedes RM L55D15a)

FAILURE CHARACTERISTICS OF PRESSURIZED STIFFENED CYLINDERS. Roger W. Peters and Norris F. Dow. December 1956. 18p. diagrs., photos., tabs. (NACA TN 3851)

FATIGUE TESTS ON NOTCHED AND UNNOTCHED SHEET SPECIMENS OF 2024-T3 AND 7075-T6 ALUMINUM ALLOYS AND OF SAE 4130 STEEL WITH SPECIAL CONSIDERATION OF THE LIFE RANGE FROM 2 TO 10,000 CYCLES. Walter Illg. December 1956. 40p. diagrs., photo., tabs. (NACA TN 3866)

EFFECT OF SPANWISE VARIATIONS IN GUST INTENSITY ON THE LIFT DUE TO ATMOSPHERIC TURBULENCE. Franklin W. Diederich and Joseph A. Drischler. April 1957. 56p. diagrs., tabs. (NACA TN 3920)

STATIC STRENGTH OF CROSS-GRAIN 7075-T6 ALUMINUM-ALLOY EXTRUDED BAR CONTAINING FATIGUE CRACKS. Walter Illg and Arthur J. McEvily, Jr. April 1957. 25p. diagrs., photos., tabs. (NACA TN 3994)

FATIGUE-CRACK PROPAGATION AND RESIDUAL STATIC STRENGTH OF BUILT-UP STRUCTURES. Herbert F. Hardrath and Richard E. Whaley. May 1957. 11p. diagrs. (NACA TN 4012)

SOME ASPECTS OF FAIL-SAFE DESIGN OF PRESSURIZED FUSELAGES. Paul Kuhn and Roger W. Peters. June 1957. 13p. diagrs. (NACA TN 4011)

(4.3.7.7.2)
Transient

EFFECT OF INTERACTION ON LANDING-GEAR BEHAVIOR AND DYNAMIC LOADS IN A FLEXIBLE AIRPLANE STRUCTURE. Francis E. Cook and Benjamin Milwitzky. 1956. ii, 30p. diagrs., tabs. (NACA Rept. 1278. Supersedes TN 3467)

SEAT DESIGN FOR CRASH WORTHINESS. I. Irving Pinkel and Edmund G. Rosenberg. October 1956. 42p. diagrs., photos., tab. (NACA TN 3777)

BAND-PASS SHOCK AND VIBRATION ABSORBERS FOR APPLICATION TO AIRCRAFT LANDING GEAR. Emanuel Schnitzer. October 1956. 27p. diagrs. (NACA TN 3803)

(4.3.8)
WEIGHT ANALYSIS

AERODYNAMIC CHARACTERISTICS OF WINGS DESIGNED FOR STRUCTURAL IMPROVEMENTS. Joseph Weil and Edward C. Polhamus. May 28, 1951. 12p. diagrs. (NACA RM L51E10a)

EXPERIMENTAL INVESTIGATION OF THE STRENGTH OF MULTIWEB BEAMS WITH CORRUGATED WEBS. Allister F. Fraser. October 1956. 17p. diagrs., photos., tabs. (NACA TN 3801)

(5)
MATERIALS

(5)
MATERIALS

SURVEY OF MICROSTRUCTURES AND MECHANICAL PROPERTIES OF OVERTEMPERATURED S-816 TURBINE BUCKETS FROM J47 ENGINES. S. Floreen and R. A. Signorelli. March 1957. 41p. diagrs., photos., tabs. (NACA RM E56K30)

(5.1)
Types

INVESTIGATION OF VANES IMMERSED IN THE JET OF A SOLID-FUEL ROCKET MOTOR. Leo V. Giladett and Andrew R. Wineman. September 1952. 30p. diagrs., photos., tab. (NACA RM L52F12)

AIR-FLOW CHARACTERISTICS OF BRAZED AND ROLLED WIRE FILTER CLOTH FOR TRANSPIRATION-COOLED AFTERBURNERS. William K. Koffel. October 1953. 55p. diagrs., photos., tabs. (NACA RM E53H24)

PERFORATED SHEETS AS THE POROUS MATERIAL FOR A SUCTION-FLAP APPLICATION. Robert E. Dannenberg, James A. Weiberg, and Bruno J. Gambucci. May 1957. 36p. diagrs., photos. (NACA TN 4038)

(5.1.1)
ALUMINUM

AN ANALYSIS OF THE STABILITY AND ULTIMATE COMPRESSIVE STRENGTH OF SHORT SHEET-STRINGER PANELS WITH SPECIAL REFERENCE TO THE INFLUENCE OF THE RIVETED CONNECTION BETWEEN SHEET AND STRINGER. Joseph W. Semonian and James P. Peterson. 1956. ii, 18p. diagrs., photo., tab. (NACA Rept. 1255. Supersedes TN 3431)

PLASTIC DEFORMATION OF ALUMINUM SINGLE CRYSTALS AT ELEVATED TEMPERATURES. R. D. Johnson, A. P. Young, and A. D. Schwope. Battelle Memorial Institute. 1956. ii, 31p. diagrs., photos., tabs. (NACA Rept. 1267. Supersedes TN 3351)

BENDING TESTS OF RING-STIFFENED CIRCULAR CYLINDERS. James P. Peterson. July 1956. 14p. diagrs., photos., tab. (NACA TN 3735)

THE FATIGUE STRENGTH OF RIVETED JOINTS AND LUGS. (De vermoeiingssterkte van Klinkverbindingen en pengatverbindingen). J. Schijve. August 1956. 54p. diagrs., tabs. (NACA TM 1395. Trans. of Nationaal Luchtvaartlaboratorium, Rapport M.1952, May 1954)

EFFECTS OF INTERMITTENT VERSUS CONTINUOUS HEATING UPON THE TENSILE PROPERTIES OF 2024-T4, 6061-T6, AND 7075-T6 ALLOYS. G. W. Stickley and H. L. Anderson, Aluminum Company of America. August 1956. 7p. tabs. (NACA TM 1419)

STUDY OF ALUMINUM DEFORMATION BY ELECTRON MICROSCOPY. A. P. Young, C. W. Melton, and C. M. Schwartz, Battelle Memorial Institute., August 1956. 39p. diagrs., photos. (NACA TN 3728)

MECHANICAL TESTS ON SPECIMENS FROM LARGE ALUMINUM-ALLOY FORGINGS. James A. Miller and Alfred L. Albert, National Bureau of Standards. August 1956. 25p. diagrs., photos., tabs. (NACA TN 3729)

POISSON'S RATIOS AND VOLUME CHANGES FOR PLASTICALLY ORTHOTROPIC MATERIAL. Elbridge Z. Stowell and Richard A. Pride. August 1956. 28p. diagrs., photos. (NACA TN 3736)

FATIGUE-CRACK PROPAGATION IN ALUMINUM-ALLOY BOX BEAMS. Herbert F. Hardrath, Herbert A. Leybold, Charles B. Landers, and Louis W. Hauschild. August 1956. 33p. diagrs., photo. (NACA TN 3856)

SOME OBSERVATIONS ON THE RELATIONSHIP BETWEEN FATIGUE AND INTERNAL FRICTION. S. R. Valluri, California Institute of Technology. September 1956. 42p. diagrs., photos., tabs. (NACA TN 3755)

STATIC STRENGTH OF ALUMINUM-ALLOY SPECIMENS CONTAINING FATIGUE CRACKS. Arthur J. McEvily, Jr., Walter Illg, and Herbert F. Hardrath. October 1956. 54p. diagrs., photos., tabs. (NACA TN 3816. Supersedes RM L55D15a)

COMPRESSIVE STRESS-STRAIN PROPERTIES OF 2024-T3 ALUMINUM-ALLOY SHEET AT ELEVATED TEMPERATURES. Eldon E. Mathauser. November 1956. 66p. diagrs., photo., tab. (NACA TN 3853)

COMPRESSIVE STRESS-STRAIN PROPERTIES OF 7075-T6 ALUMINUM-ALLOY SHEET AT ELEVATED TEMPERATURES. Eldon E. Mathauser. November 1956. 54p. diagrs., photo., tab. (NACA TN 3854)

FAILURE CHARACTERISTICS OF PRESSURIZED STIFFENED CYLINDERS. Roger W. Peters and Norris F. Dow. December 1956. 18p. diagrs., photos., tabs. (NACA TN 3851)

FATIGUE TESTS ON NOTCHED AND UNNOTCHED SHEET SPECIMENS OF 2024-T3 AND 7075-T6 ALUMINUM ALLOYS AND OF SAE 4130 STEEL WITH SPECIAL CONSIDERATION OF THE LIFE RANGE FROM 2 TO 10,000 CYCLES. Walter Illg. December 1956. 40p. diagrs., photo., tabs. (NACA TN 3866)

STATIC STRENGTH OF CROSS-GRAIN 7075-T6 ALUMINUM-ALLOY EXTRUDED BAR CONTAINING FATIGUE CRACKS. Walter Illg and Arthur J. McEvily, Jr. April 1957. 25p. diagrs., photos., tabs. (NACA TN 3994)

EFFECT OF FATIGUE CRACK ON STATIC STRENGTH: 2014-T6, 2024-T4, 6061-T6, 7075-T6 OPEN-HOLE MONOBLOC SPECIMENS. Glenn E. Nordmark and Ian D. Eaton, Aluminum Company of America. May 1957. 22p. diagrs., tabs. (NACA TM 1428)

A PHENOMENOLOGICAL RELATION BETWEEN STRESS, STRAIN RATE, AND TEMPERATURE FOR METALS AT ELEVATED TEMPERATURES. Elbridge Z. Stowell. May 1957. 19p. diagrs., tab. (NACA TN 4000)

FATIGUE-CRACK PROPAGATION AND RESIDUAL STATIC STRENGTH OF BUILT-UP STRUCTURES. Herbert F. Hardrath and Richard E. Whaley. May 1957. 11p. diagrs. (NACA TN 4012)

APPRAISAL OF THE HAZARDS OF FRICTION-SPARK IGNITION OF AIRCRAFT CRASH FIRES. John A. Campbell. May 1957. 23p. photos., tabs. (NACA TN 4024)

SOME ASPECTS OF FAIL-SAFE DESIGN OF PRESSURIZED FUSELAGES. Paul Kuhn and Roger W. Peters. June 1957. 13p. diagrs. (NACA TN 4011)

(5.1.2) MAGNESIUM

TENSILE PROPERTIES OF HK31XA-H24 MAGNESIUM-ALLOY SHEET UNDER RAPID-HEATING CONDITIONS AND CONSTANT ELEVATED TEMPERATURES. Thomas W. Gibbs. August 1956. 20p. diagrs., tabs. (NACA TN 3742)

TENSILE PROPERTIES OF AZ31A-0 MAGNESIUM-ALLOY SHEET UNDER RAPID-HEATING AND CONSTANT-TEMPERATURE CONDITIONS. Ivo M. Kurg. August 1956. 21p. diagrs., tabs. (NACA TN 3752)

APPRAISAL OF THE HAZARDS OF FRICTION-SPARK IGNITION OF AIRCRAFT CRASH FIRES. John A. Campbell. May 1957. 23p. photos., tabs. (NACA TN 4024)

(5.1.3) STEELS

HIGH-RESOLUTION AUTORADIOGRAPHY. George C. Towe, Henry J. Gomberg, and J. W. Freeman. University of Michigan. 1955. iii, 52p. diagrs., photos., tabs. (NACA Rept. 1243. Supersedes TN 3209)

POISSON'S RATIOS AND VOLUME CHANGES FOR PLASTICALLY ORTHOTROPIC MATERIAL. Elbridge Z. Stowell and Richard A. Pride. August 1956. 28p. diagrs., photos. (NACA TN 3736)

FURTHER INVESTIGATION OF THE FEASIBILITY OF THE FREEZE-CASTING METHOD FOR FORMING FULL-SIZE INFILTRATED TITANIUM CARBIDE TURBINE BLADES. E. M. Grala. October 1956. 19p. diagr., photos., tabs. (NACA TN 3769)

FATIGUE TESTS ON NOTCHED AND UNNOTCHED SHEET SPECIMENS OF 2024-T3 AND 7075-T6 ALUMINUM ALLOYS AND OF SAE 4130 STEEL WITH SPECIAL CONSIDERATION OF THE LIFE RANGE FROM 2 TO 10,000 CYCLES. Walter Illg. December 1956. 40p. diagrs., photo., tabs. (NACA TN 3866)

EFFECT OF FIBER ORIENTATION ON BALL FAILURES UNDER ROLLING-CONTACT CONDITIONS. Robert H. Butler, H. Robert Bear, and Thomas L. Carter. February 1957. 35p. diagrs., photos., tabs. (NACA TN 3933)

PRELIMINARY METALLOGRAPHIC STUDIES OF BALL FATIGUE UNDER ROLLING-CONTACT CONDITIONS. H. Robert Bear and Robert H. Butler. March 1957. 38p. diagrs., photos. (NACA TN 3925)

STRESS-LIFE RELATION OF THE ROLLING-CONTACT FATIGUE SPIN RIG. Robert H. Butler and Thomas L. Carter. March 1957. 23p. diagrs., photos., tabs. (NACA TN 3930)

APPRAISAL OF THE HAZARDS OF FRICTION-SPARK IGNITION OF AIRCRAFT CRASH FIRES. John A. Campbell. May 1957. 23p. photos., tabs. (NACA TN 4024)

(5.1.4)
HEAT-RESISTING ALLOYS

RELATION OF ENGINE TURBINE-BLADE LIFE TO STRESS-RUPTURE PROPERTIES OF THE ALLOYS, STELLITE 21, HASTELLOY B, CAST S-816, FORGED S-816, X-40, NIMONIC 80, REFRACTALOY 26, N-155, AND INCONEL X. F. B. Garrett and C. Yaker. August 1951. 59p. diagrs., photos., tabs. (NACA RM E51G13)

INVESTIGATION OF MECHANICAL FASTENINGS FOR SOLID TURBINE BLADES MADE FROM DUCTILE MATERIALS. André J. Meyer, Jr., Albert Kaufman, and W. C. Caywood. August 1954. 45p. diagrs., photos., tabs. (NACA RM E54E21)

HIGH-RESOLUTION AUTORADIOGRAPHY. George C. Towe, Henry J. Gomberg, and J. W. Freeman. University of Michigan. 1955. iii, 52p. diagrs., photos., tabs. (NACA Rept. 1243. Supersedes TN 3209)

AN EXPERIMENTAL EVALUATION OF SEVERAL DESIGN VARIATIONS OF HOLLOW TURBINE BLADES FOR EXPENDABLE ENGINE APPLICATION. W. C. Morgan and R. H. Kemp. February 1955. 33p. diagr., photos., tabs. (NACA RM E54K23)

PERFORMANCE OF AS-FORGED, HEAT-TREATED, AND OVERAGED S-816 BLADES IN A TURBOJET ENGINE. J. W. Weeton, F. J. Clauss, and J. R. Johnston. March 1955. 51p. diagrs., photos., tabs. (NACA RM E54K17)

ENGINE PERFORMANCE OF PRECISION-FORGED, ELECTRO-POLISHED AND MACHINED BLADES OF NIMONIC 80 AND 80A ALLOYS. Paul F. Sikora and James R. Johnston. April 1955. 27p. diagrs., photos., tabs. (NACA RM E55A21)

AN EVALUATION OF ELECTROPOLISHED AND NONELECTROPOLISHED BLADES OF ALLOYS REFRACTALOY 26, M-252, AND WASPALOY IN A J33-9 TURBOJET ENGINE. F. J. Clauss, R. A. Signorelli, and J. R. Johnston. June 1955. 27p. diagrs., photos., tabs. (NACA RM E54L29a)

PERFORMANCE OF INCONEL 550 TURBINE BLADES IN A TURBOJET ENGINE AND EFFECTS OF DIFFERENT FORGING TEMPERATURES AND HEAT TREATMENTS. C. A. Gyorgak, J. R. Johnston, and J. W. Weeton. August 1955. 55p. diagrs., photos., tabs. (NACA RM E55F08)

EFFECTS OF A STRAIGHTENING OPERATION ON PERFORMANCE OF INCONEL 550 BUCKETS. C. A. Gyorgak, J. R. Johnston, and J. W. Weeton. February 1956. 24p. diagrs., photos., tabs. (NACA RM E55L06)

ENGINE PERFORMANCE OF OVERTEMPERATURE HEAT-TREATED S-816 BUCKETS. R. A. Signorelli, F. B. Garrett, and J. W. Weeton. March 1956. 26p. diagrs., tabs. (NACA RM E55L06a)

TENSILE PROPERTIES OF INCONEL AND RS-120 TITANIUM-ALLOY SHEET UNDER RAPID-HEATING AND CONSTANT-TEMPERATURE CONDITIONS. George J. Heimerl, Ivo M. Kurg, and John E. Inge. July 1956. 29p. diagrs., photo., tabs. (NACA TN 3731)

INFLUENCE OF HOT-WORKING CONDITIONS ON HIGH-TEMPERATURE PROPERTIES OF A HEAT-RESISTANT ALLOY. John F. Ewing and J. W. Freeman, University of Michigan. August 1956. 134p. diagrs., photos., tabs. (NACA TN 3727)

PRELIMINARY INVESTIGATION OF GUY ALLOY AS A TURBOJET-ENGINE BUCKET MATERIAL FOR USE AT 1650° F. R. A. Signorelli, J. R. Johnston, and J. W. Weeton. November 1956. 22p. diagrs., photos., tab. (NACA RM E56I19)

INVESTIGATION OF THE NiAl PHASE OF NICKEL-ALUMINUM ALLOYS. Edward M. Grala. January 1957. 33p. diagrs., photos., tabs. (NACA TN 3828)

A STUDY OF THE "TOSS FACTOR" IN THE IMPACT TESTING OF CERMETS BY THE IZOD PENDULUM TEST. H. B. Probst and Howard T. McHenry. February 1957. 13p. diagrs., photo., tab. (NACA TN 3931)

SURVEY OF MICROSTRUCTURES AND MECHANICAL PROPERTIES OF OVERTEMPERATURED S-816 TURBINE BUCKETS FROM J47 ENGINES. S. Floreen and R. A. Signorelli. March 1957. 41p. diagrs., photos., tabs. (NACA RM E56K30)

EVALUATION OF THE USE OF ELECTRICAL RESISTANCE FOR DETECTING OVERTEMPERATURED S-816 TURBINE BLADES. Leonard Robins. March 1957. 22p. diagrs., photos., tabs. (NACA RM E57A29a)

A STUDY OF THE IMPACT BEHAVIOR OF HIGH-TEMPERATURE MATERIALS. H. B. Probst and Howard T. McHenry. March 1957. 23p. diagrs., photos., tabs. (NACA TN 3894)

RUPTURE STRENGTH OF SEVERAL NICKEL-BASE ALLOYS IN SHEET FORM. James H. Dance and Francis J. Clauss. April 1957. 24p. diagrs., photos., tabs. (NACA TN 3976)

INFLUENCE OF CRUCIBLE MATERIALS ON HIGH-TEMPERATURE PROPERTIES OF VACUUM-MELTED NICKEL-CHROMIUM-COBALT ALLOY. R. F. Decker, John P. Rowe, and J. W. Freeman, University of Michigan. June 1957. 34p. diagrs., photos., tabs. (NACA TN 4049)

(5.1.5) CERAMICS

FURTHER INVESTIGATION OF THE FEASIBILITY OF THE FREEZE-CASTING METHOD FOR FORMING FULL-SIZE INFILTRATED TITANIUM CARBIDE TURBINE BLADES. E. M. Grala. October 1956. 19p. diagr., photos., tabs. (NACA TN 3769)

(5.1.6) PLASTICS

DEVELOPMENT OF CRAZE AND IMPACT RESISTANCE IN GLAZING PLASTICS BY MULTIAXIAL STRETCHING. G. M. Kline, I. Wolock, B. M. Axilrod, M. A. Sherman, D. A. George, and V. Cohen, National Bureau of Standards. 1956. ii, 16p. diagrs., photos., tabs. (NACA Rept. 1290)

COMPARISON OF THEORETICAL STRESSES AND DEFLECTIONS OF MULTICELL WINGS WITH EXPERIMENTAL RESULTS OBTAINED FROM PLASTIC MODELS. George W. Zender. November 1956. 32p. diagrs., photos. (NACA TN 3813)

SHEAR STRENGTH AT 75° F TO 500° F OF FOURTEEN ADHESIVES USED TO BOND A GLASS-FABRIC-REINFORCED PHENOLIC RESIN LAMINATE TO STEEL. John R. Davidson. December 1956. 21p. diagrs., photo., tab. (NACA TN 3901)

COMPARISON OF MECHANICAL PROPERTIES OF FLAT SHEETS, MOLDED SHAPES, AND POST-FORMED SHAPES OF COTTON-FABRIC PHENOLIC LAMINATES. F. W. Reinhart, C. L. Good, P. S. Turner, and I. Wolock, National Bureau of Standards. January 1957. 60p. diagrs., photos., tabs. (NACA TN 3825)

(5.1.8) ADHESIVES

SHEAR STRENGTH AT 75° F TO 500° F OF FOURTEEN ADHESIVES USED TO BOND A GLASS-FABRIC-REINFORCED PHENOLIC RESIN LAMINATE TO STEEL. John R. Davidson. December 1956. 21p. diagrs., photo., tab. (NACA TN 3901)

(5.1.11) SANDWICH AND LAMINATES

A STUDY OF THE EFFICIENCY OF HIGH-STRENGTH, STEEL, CELLULAR-CORE SANDWICH PLATES IN COMPRESSION. Aldie E. Johnson, Jr., and Joseph W. Semonian. September 1956. 26p. diagrs., tab. (NACA TN 3751)

SHEAR STRENGTH AT 75° F TO 500° F OF FOURTEEN ADHESIVES USED TO BOND A GLASS-FABRIC-REINFORCED PHENOLIC RESIN LAMINATE TO STEEL. John R. Davidson. December 1956. 21p. diagrs., photo., tab. (NACA TN 3901)

COMPARISON OF MECHANICAL PROPERTIES OF FLAT SHEETS, MOLDED SHAPES, AND POST-FORMED SHAPES OF COTTON-FABRIC PHENOLIC LAMINATES. F. W. Reinhart, C. L. Good, P. S. Turner, and I. Wolock, National Bureau of Standards. January 1957. 60p. diagrs., photos., tabs. (NACA TN 3825)

SOME RESEARCH RESULTS ON SANDWICH STRUCTURES. Melvin S. Anderson and Richard G. Updegraff. June 1957. 12p. diagrs., photos. (NACA TN 4009)

(5.1.12) CERAMALS

THE DESIGN OF BRITTLE-MATERIAL BLADE ROOTS BASED ON THEORY AND RUPTURE TESTS OF PLASTIC MODELS. André J. Meyer, Jr., Albert Kaufman, and William C. Caywood. September 1956. 46p. diagrs., photos., tab. (NACA TN 3773. Supersedes RM E53C12)

FURTHER INVESTIGATION OF THE FEASIBILITY OF THE FREEZE-CASTING METHOD FOR FORMING FULL-SIZE INFILTRATED TITANIUM CARBIDE TURBINE BLADES. E. M. Grala. October 1956. 19p. diagr., photos., tabs. (NACA TN 3769)

PRELIMINARY INVESTIGATION OF THE EFFECT OF SURFACE TREATMENT ON THE STRENGTH OF A TITANIUM CARBIDE - 30 PERCENT NICKEL BASE CERMET. Leonard Robins and Edward M. Grala. February 1957. 16p. diagrs., photos., tabs. (NACA TN 3927)

A STUDY OF THE "TOSS FACTOR" IN THE IMPACT TESTING OF CERMETS BY THE IZOD PENDULUM TEST. H. B. Probst and Howard T. McHenry. February 1957. 13p. diagrs., photo., tab. (NACA TN 3931)

A STUDY OF THE IMPACT BEHAVIOR OF HIGH-TEMPERATURE MATERIALS. H. B. Probst and Howard T. McHenry. March 1957. 23p. diagrs., photos., tabs. (NACA TN 3894)

(5.2)
Properties

AN EVALUATION OF ELECTROPOLISHED AND NONELECTROPOLISHED BLADES OF ALLOYS REFRACTALOY 26, M-252, AND WASPALOY IN A J33-9 TURBOJET ENGINE. F. J. Clauss, R. A. Signorelli, and J. R. Johnston. June 1955. 27p. diagrs., photos., tabs. (NACA RM E54L29a)

EFFECTS OF A STRAIGHTENING OPERATION ON PERFORMANCE OF INCONEL 550 BUCKETS. C. A. Gyorgak, J. R. Johnston, and J. W. Weeton. February 1956. 24p. diagrs., photos., tabs. (NACA RM E55L06)

EVALUATION OF THE USE OF ELECTRICAL RESISTANCE FOR DETECTING OVERTEMPERATURED S-816 TURBINE BLADES. Leonard Robins. March 1957. 22p. diagrs., photos., tabs. (NACA RM E57A29a)

(5.2.1)
TENSILE

INVESTIGATION OF MECHANICAL FASTENINGS FOR SOLID TURBINE BLADES MADE FROM DUCTILE MATERIALS. André J. Meyer, Jr., Albert Kaufman, and W. C. Caywood. August 1954. 45p. diagrs., photos., tabs. (NACA RM E54E21)

TENSILE PROPERTIES OF INCONEL AND RS-120 TITANIUM-ALLOY SHEET UNDER RAPID-HEATING AND CONSTANT-TEMPERATURE CONDITIONS. George J. Heimerl, Ivo M. Kurg, and John E. Inge. July 1956. 29p. diagrs., photo., tabs. (NACA TN 3731)

EFFECTS OF INTERMITTENT VERSUS CONTINUOUS HEATING UPON THE TENSILE PROPERTIES OF 2024-T4, 6061-T6, AND 7075-T6 ALLOYS. G. W. Stickley and H. L. Anderson, Aluminum Company of America. August 1956. 7p. tabs. (NACA TM 1419)

INFLUENCE OF HOT-WORKING CONDITIONS ON HIGH-TEMPERATURE PROPERTIES OF A HEAT-RESISTANT ALLOY. John F. Ewing and J. W. Freeman, University of Michigan. August 1956. 134p. diagrs., photos., tabs. (NACA TN 3727)

MECHANICAL TESTS ON SPECIMENS FROM LARGE ALUMINUM-ALLOY FORGINGS. James A. Miller and Alfred L. Albert, National Bureau of Standards. August 1956. 25p. diagrs., photos., tabs. (NACA TN 3729)

POISSON'S RATIOS AND VOLUME CHANGES FOR PLASTICALLY ORTHOTROPIC MATERIAL. Elbridge Z. Stowell and Richard A. Pride. August 1956. 28p. diagrs., photos. (NACA TN 3736)

TENSILE PROPERTIES OF HK31XA-H24 MAGNESIUM-ALLOY SHEET UNDER RAPID-HEATING CONDITIONS AND CONSTANT ELEVATED TEMPERATURES. Thomas W. Gibbs. August 1956. 20p. diagrs., tabs. (NACA TN 3742)

TENSILE PROPERTIES OF AZ31A-0 MAGNESIUM-ALLOY SHEET UNDER RAPID-HEATING AND CONSTANT-TEMPERATURE CONDITIONS. Ivo M. Kurg. August 1956. 21p. diagrs., tabs. (NACA TN 3752)

STATIC STRENGTH OF ALUMINUM-ALLOY SPECIMENS CONTAINING FATIGUE CRACKS. Arthur J. McEvily, Jr., Walter Illg, and Herbert F. Hardrath. October 1956. 54p. diagrs., photos., tabs. (NACA TN 3816. Supersedes RM L55D15a)

COMPARISON OF MECHANICAL PROPERTIES OF FLAT SHEETS, MOLDED SHAPES, AND POST-FORMED SHAPES OF COTTON-FABRIC PHENOLIC LAMINATES. F. W. Reinhart, C. L. Good, P. S. Turner, and I. Wolock, National Bureau of Standards. January 1957. 60p. diagrs., photos., tabs. (NACA TN 3825)

INVESTIGATION OF THE NiAl PHASE OF NICKEL-ALUMINUM ALLOYS. Edward M. Grala. January 1957. 33p. diagrs., photos., tabs. (NACA TN 3828)

STATIC STRENGTH OF CROSS-GRAIN 7075-T6 ALUMINUM-ALLOY EXTRUDED BAR CONTAINING FATIGUE CRACKS. Walter Illg and Arthur J. McEvily, Jr. April 1957. 25p. diagrs., photos., tabs. (NACA TN 3994)

EFFECT OF FATIGUE CRACK ON STATIC STRENGTH: 2014-T6, 2024-T4, 6061-T6, 7075-T6 OPEN-HOLE MONOBLOC SPECIMENS. Glenn E. Nordmark and Ian D. Eaton, Aluminum Company of America. May 1957. 22p. diagrs., tabs. (NACA TM 1428)

A PHENOMENOLOGICAL RELATION BETWEEN STRESS, STRAIN RATE, AND TEMPERATURE FOR METALS AT ELEVATED TEMPERATURES. Elbridge Z. Stowell. May 1957. 19p. diagrs., tab. (NACA TN 4000)

(5.2.2) COMPRESSIVE

MECHANICAL TESTS ON SPECIMENS FROM LARGE ALUMINUM-ALLOY FORGINGS. James A. Miller and Alfred L. Albert, National Bureau of Standards. August 1956. 25p. diagrs., photos., tabs. (NACA TN 3729)

POISSON'S RATIOS AND VOLUME CHANGES FOR PLASTICALLY ORTHOTROPIC MATERIAL. Elbridge Z. Stowell and Richard A. Pride. August 1956. 28p. diagrs., photos. (NACA TN 3736)

COMPRESSIVE STRESS-STRAIN PROPERTIES OF 2024-T3 ALUMINUM-ALLOY SHEET AT ELEVATED TEMPERATURES. Eldon E. Mathauser. November 1956. 66p. diagrs., photo., tab. (NACA TN 3853)

COMPRESSIVE STRESS-STRAIN PROPERTIES OF 7075-T6 ALUMINUM-ALLOY SHEET AT ELEVATED TEMPERATURES. Eldon E. Mathauser. November 1956. 54p. diagrs., photo., tab. (NACA TN 3854)

(5.2.3) CREEP

PLASTIC DEFORMATION OF ALUMINUM SINGLE CRYSTALS AT ELEVATED TEMPERATURES. R. D. Johnson, A. P. Young, and A. D. Schwope. Battelle Memorial Institute. 1956. ii, 31p. diagrs., photos., tabs. (NACA Rept. 1267. Supersedes TN 3351)

ENGINE PERFORMANCE OF OVERTEMPERATURE HEAT-TREATED S-816 BUCKETS. R. A. Signorelli, F. B. Garrett, and J. W. Weeton. March 1956. 26p. diagrs., tabs. (NACA RM E55L06a)

INFLUENCE OF HOT-WORKING CONDITIONS ON HIGH-TEMPERATURE PROPERTIES OF A HEAT-RESISTANT ALLOY. John F. Ewing and J. W. Freeman, University of Michigan. August 1956. 134p. diagrs., photos., tabs. (NACA TN 3727)

STUDY OF ALUMINUM DEFORMATION BY ELECTRON MICROSCOPY. A. P. Young, C. W. Melton, and C. M. Schwartz, Battelle Memorial Institute. August 1956. 39p. diagrs., photos. (NACA TN 3728)

INTERACTION OF BEARING AND TENSILE LOADS ON CREEP PROPERTIES OF JOINTS. E. G. Bodine, R. L. Carlson, and G. K. Manning. Battelle Memorial Institute. October 1956. 23p. diagrs., photo. (NACA TN 3758)

CREEP BEHAVIOR OF STRUCTURAL JOINTS OF AIRCRAFT MATERIALS UNDER CONSTANT LOADS AND TEMPERATURES. Leonard Mordfin and Alvin C. Legate, National Bureau of Standards. January 1957. 53p. diagrs., tabs. (NACA TN 3842)

A PHENOMENOLOGICAL RELATION BETWEEN STRESS, STRAIN RATE, AND TEMPERATURE FOR METALS AT ELEVATED TEMPERATURES. Elbridge Z. Stowell. May 1957. 19p. diagrs., tab. (NACA TN 4000)

A VARIATIONAL THEOREM FOR CREEP WITH APPLICATIONS TO PLATES AND COLUMNS. J. Lyell Sanders, Jr., Harvey G. McComb, Jr., and Floyd R. Schlechte. May 1957. 23p. diagrs. (NACA TN 4003)

(5.2.4) STRESS-RUPTURE

INVESTIGATION OF MECHANICAL FASTENINGS FOR SOLID TURBINE BLADES MADE FROM DUCTILE MATERIALS. André J. Meyer, Jr., Albert Kaufman, and W. C. Caywood. August 1954. 45p. diagrs., photos., tabs. (NACA RM E54E21)

PERFORMANCE OF AS-FORGED, HEAT-TREATED, AND OVERAGED S-816 BLADES IN A TURBOJET ENGINE. J. W. Weeton, F. J. Clauss, and J. R. Johnston. March 1955. 51p. diagrs., photos., tabs. (NACA RM E54K17)

ENGINE PERFORMANCE OF PRECISION-FORGED, ELECTRO-POLISHED AND MACHINED BLADES OF NIMONIC 80 AND 80A ALLOYS. Paul F. Sikora and James R. Johnston. April 1955. 27p. diagrs., photos., tabs. (NACA RM E55A21)

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ENGINE PERFORMANCE OF OVERTEMPERATURE HEAT-TREATED S-816 BUCKETS. R. A. Signorelli, F. B. Garrett, and J. W. Weeton. March 1956. 26p. diagrs., tabs. (NACA RM E55L06a)

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INVESTIGATION OF THE NiAl PHASE OF NICKEL-ALUMINUM ALLOYS. Edward M. Grala. January 1957. 33p. diagrs., photos., tabs. (NACA TN 3828)

SURVEY OF MICROSTRUCTURES AND MECHANICAL PROPERTIES OF OVERTEMPERATURED S-816 TURBINE BUCKETS FROM J47 ENGINES. S. Floreen and R. A. Signorelli. March 1957. 41p. diagrs., photos., tabs. (NACA RM E56K30)

RUPTURE STRENGTH OF SEVERAL NICKEL-BASE ALLOYS IN SHEET FORM. James H. Dance and Francis J. Clauss. April 1957. 24p. diagrs., photos., tabs. (NACA TN 3976)

A PHENOMENOLOGICAL RELATION BETWEEN STRESS, STRAIN RATE, AND TEMPERATURE FOR METALS AT ELEVATED TEMPERATURES. Elbridge Z. Stowell. May 1957. 19p. diagrs., tab. (NACA TN 4000)

INFLUENCE OF CRUCIBLE MATERIALS ON HIGH-TEMPERATURE PROPERTIES OF VACUUM-MELTED NICKEL-CHROMIUM-COBALT ALLOY. R. F. Decker, John P. Rowe, and J. W. Freeman, University of Michigan. June 1957. 34p. diagrs., photos., tabs. (NACA TN 4049)

(5.2.5) FATIGUE

ENGINE PERFORMANCE OF PRECISION-FORGED, ELECTRO-POLISHED AND MACHINED BLADES OF NIMONIC 80 AND 80A ALLOYS. Paul F. Sikora and James R. Johnston. April 1955. 27p. diagrs., photos., tabs. (NACA RM E55A21)

PERFORMANCE OF INCONEL 550 TURBINE BLADES IN A TURBOJET ENGINE AND EFFECTS OF DIFFERENT FORGING TEMPERATURES AND HEAT TREATMENTS. C. A. Gyorgak, J. R. Johnston, and J. W. Weeton. August 1955. 55p. diagrs., photos., tabs. (NACA RM E55F08)

THE FATIGUE STRENGTH OF RIVETED JOINTS AND LUGS. (De vermoeiingssterkte van Klinkverbindingen en pengatverbindingen). J. Schijve. August 1956. 54p. diagrs., tabs. (NACA TM 1395. Trans. of Nationaal Luchtvaartlaboratorium, Rapport M.1952, May 1954)

FATIGUE-CRACK PROPAGATION IN ALUMINUM-ALLOY BOX BEAMS. Herbert F. Hardrath, Herbert A. Leybold, Charles B. Landers, and Louis W. Hauschild. August 1956. 33p. diagrs., photo. (NACA TN 3856)

SOME OBSERVATIONS ON THE RELATIONSHIP BETWEEN FATIGUE AND INTERNAL FRICTION. S. R. Valluri, California Institute of Technology. September 1956. 42p. diagrs., photos., tabs. (NACA TN 3755)

FATIGUE-CRACK-PROPAGATION AND RESIDUAL-STATIC-STRENGTH RESULTS ON FULL-SCALE TRANSPORT-AIRPLANE WINGS. Richard E. Whaley, M. J. McGuigan, Jr., and D. F. Bryan. December 1956. 57p. diagrs., photos., tabs. (NACA TN 3847)

FATIGUE TESTS ON NOTCHED AND UNNOTCHED SHEET SPECIMENS OF 2024-T3 AND 7075-T6 ALUMINUM ALLOYS AND OF SAE 4130 STEEL WITH SPECIAL CONSIDERATION OF THE LIFE RANGE FROM 2 TO 10,000 CYCLES. Walter Illg. December 1956. 40p. diagrs., photo., tabs. (NACA TN 3866)

EFFECT OF FIBER ORIENTATION ON BALL FAILURES UNDER ROLLING-CONTACT CONDITIONS. Robert H. Butler, H. Robert Bear, and Thomas L. Carter. February 1957. 35p. diagrs., photos., tabs. (NACA TN 3933)

EFFECT OF FREQUENCY AND TEMPERATURE ON FATIGUE OF METALS. S. R. Valluri, California Institute of Technology. February 1957. 15p. diagrs. (NACA TN 3972)

PRELIMINARY METALLOGRAPHIC STUDIES OF BALL FATIGUE UNDER ROLLING-CONTACT CONDITIONS. H. Robert Bear and Robert H. Butler. March 1957. 38p. diagrs., photos. (NACA TN 3925)

STRESS-LIFE RELATION OF THE ROLLING-CONTACT FATIGUE SPIN RIG. Robert H. Butler and Thomas L. Carter. March 1957. 23p. diagrs., photos., tabs. (NACA TN 3930)

EFFECT OF FATIGUE CRACK ON STATIC STRENGTH: 2014-T6, 2024-T4, 6061-T6, 7075-T6 OPEN-HOLE MONOBLOC SPECIMENS. Glenn E. Nordmark and Ian D. Eaton, Aluminum Company of America. May 1957. 22p. diagrs., tabs. (NACA TM 1428)

(5.2.6) SHEAR

INVESTIGATION OF MECHANICAL FASTENINGS FOR SOLID TURBINE BLADES MADE FROM DUCTILE MATERIALS. André J. Meyer, Jr., Albert Kaufman, and W. C. Caywood. August 1954. 45p. diagrs., photos., tabs. (NACA RM E54E21)

SHEAR STRENGTH AT 75° F TO 500° F OF FOURTEEN ADHESIVES USED TO BOND A GLASS-FABRIC-REINFORCED PHENOLIC RESIN LAMINATE TO STEEL. John R. Davidson. December 1956. 21p. diagrs., photo., tab. (NACA TN 3901)

AN INVESTIGATION OF HIGH-TEMPERATURE VACUUM AND HYDROGEN FURNACE BRAZING. Walter E. Russell and John P. Wisner. March 1957. 29p. diagrs., photos., tabs. (NACA TN 3932)

(5.2.7) FLEXURAL

MECHANICAL TESTS ON SPECIMENS FROM LARGE ALUMINUM-ALLOY FORGINGS. James A. Miller and Alfred L. Albert, National Bureau of Standards. August 1956. 25p. diagrs., photos., tabs. (NACA TN 3729)

COMPARISON OF MECHANICAL PROPERTIES OF FLAT SHEETS, MOLDED SHAPES, AND POST-FORMED SHAPES OF COTTON-FABRIC PHENOLIC LAMINATES. F. W. Reinhart, C. L. Good, P. S. Turner, and I. Wolock, National Bureau of Standards. January 1957. 60p. diagrs., photos., tabs. (NACA TN 3825)

PRELIMINARY INVESTIGATION OF THE EFFECT OF SURFACE TREATMENT ON THE STRENGTH OF A TITANIUM CARBIDE - 30 PERCENT NICKEL BASE CERMET. Leonard Robins and Edward M. Grala. February 1957. 16p. diagrs., photos., tabs. (NACA TN 3927)

(5.2.8) CORROSION RESISTANCE

INVESTIGATION OF THE NiAl PHASE OF NICKEL-ALUMINUM ALLOYS. Edward M. Grala. January 1957. 33p. diagrs., photos., tabs. (NACA TN 3828)

(5.2.9) STRUCTURE

HIGH-RESOLUTION AUTORADIOGRAPHY. George C. Towe, Henry J. Gomberg, and J. W. Freeman. University of Michigan. 1955. iii, 52p. diagrs., photos., tabs. (NACA Rept. 1243. Supersedes TN 3209)

INFLUENCE OF HOT-WORKING CONDITIONS ON HIGH-TEMPERATURE PROPERTIES OF A HEAT-RESISTANT ALLOY. John F. Ewing and J. W. Freeman, University of Michigan. August 1956. 134p. diagrs., photos., tabs. (NACA TN 3727)

STUDY OF ALUMINUM DEFORMATION BY ELECTRON MICROSCOPY. A. P. Young, C. W. Melton, and C. M. Schwartz, Battelle Memorial Institute. August 1956. 39p. diagrs., photos. (NACA TN 3728)

STATIC STRENGTH OF ALUMINUM-ALLOY SPECIMENS CONTAINING FATIGUE CRACKS. Arthur J. McEvily, Jr., Walter Illg, and Herbert F. Hardrath. October 1956. 54p. diagrs., photos., tabs. (NACA TN 3816. Supersedes RM L55D15a)

PRELIMINARY INVESTIGATION OF THE EFFECT OF SURFACE TREATMENT ON THE STRENGTH OF A TITANIUM CARBIDE - 30 PERCENT NICKEL BASE CERMET. Leonard Robins and Edward M. Grala. February 1957. 16p. diagrs., photos., tabs. (NACA TN 3927)

STATIC STRENGTH OF CROSS-GRAIN 7075-T6 ALUMINUM-ALLOY EXTRUDED BAR CONTAINING FATIGUE CRACKS. Walter Illg and Arthur J. McEvily, Jr.. April 1957. 25p. diagrs., photos., tabs. (NACA TN 3994)

(5.2.11) THERMAL

PLASTIC DEFORMATION OF ALUMINUM SINGLE CRYSTALS AT ELEVATED TEMPERATURES. R. D. Johnson, A. P. Young, and A. D. Schwope. Battelle Memorial Institute. 1956. ii, 31p. diagrs., photos., tabs. (NACA Rept. 1267. Supersedes TN 3351)

ENGINE PERFORMANCE OF OVERTEMPERATURE HEAT-TREATED S-816 BUCKETS. R. A. Signorelli, F. B. Garrett, and J. W. Weeton. March 1956. 26p. diagrs., tabs. (NACA RM E55L06a)

TENSILE PROPERTIES OF INCONEL AND RS-120 TITANIUM-ALLOY SHEET UNDER RAPID-HEATING AND CONSTANT-TEMPERATURE CONDITIONS. George J. Heimerl, Ivo M. Kurg, and John E. Inge. July 1956. 29p. diagrs., photo., tabs. (NACA TN 3731)

EFFECTS OF INTERMITTENT VERSUS CONTINUOUS HEATING UPON THE TENSILE PROPERTIES OF 2024-T4, 6061-T6, AND 7075-T6 ALLOYS. G. W. Stickley and H. L. Anderson, Aluminum Company of America. August 1956. 7p. tabs. (NACA TM 1419)

TENSILE PROPERTIES OF HK31XA-H24 MAGNESIUM-ALLOY SHEET UNDER RAPID-HEATING CONDITIONS AND CONSTANT ELEVATED TEMPERATURES. Thomas W. Gibbs. August 1956. 2[illegible]. diagrs., tabs. (NACA TN 3742)

TENSILE PROPERTIES OF AZ31A-0 MAGNESIUM-ALLOY SHEET UNDER RAPID-HEATING AND CONSTANT-TEMPERATURE CONDITIONS. Ivo M. Kurg. August 1956. 21p. diagrs., tabs. (NACA TN 3752)

HEAT-CAPACITY MEASUREMENTS OF TITANIUM AND OF A HYDRIDE OF TITANIUM FOR TEMPERATURES FROM 4° TO 15° K INCLUDING A DETAILED DESCRIPTION OF A SPECIAL ADIABATIC SPECIFIC-HEAT CALORIMETER. M. H. Aven, R. S. Craig, and W. E. Wallace, University of Pittsburgh. October 1956. 30p. diagrs., tabs. (NACA TN 3787)

A PHENOMENOLOGICAL RELATION BETWEEN STRESS, STRAIN RATE, AND TEMPERATURE FOR METALS AT ELEVATED TEMPERATURES. Elbridge Z. Stowell. May 1957. 19p. diagrs., tab. (NACA TN 4000)

THE COMBINATIONS OF THERMAL AND LOAD STRESSES FOR THE ONSET OF PERMANENT BUCKLING IN PLATES. George W. Zender and Richard A. Pride. June 1957. 10p. diagrs., photo. (NACA TN 4053)

(5.2.13) PLASTICITY

PLASTIC DEFORMATION OF ALUMINUM SINGLE CRYSTALS AT ELEVATED TEMPERATURES. R. D. Johnson, A. P. Young, and A. D. Schwope. Battelle Memorial Institute. 1956. ii, 31p. diagrs., photos., tabs. (NACA Rept. 1267. Supersedes TN 3351)

INFLUENCE OF HOT-WORKING CONDITIONS ON HIGH-TEMPERATURE PROPERTIES OF A HEAT-RESISTANT ALLOY. John F. Ewing and J. W. Freeman, University of Michigan. August 1956. 134p. diagrs., photos., tabs. (NACA TN 3727)

POISSON'S RATIOS AND VOLUME CHANGES FOR PLASTICALLY ORTHOTROPIC MATERIAL. Elbridge Z. Stowell and Richard A. Pride. August 1956. 28p. diagrs., photos. (NACA TN 3736)

STATIC STRENGTH OF ALUMINUM-ALLOY SPECIMENS CONTAINING FATIGUE CRACKS. Arthur J. McEvily, Jr., Walter Illg, and Herbert F. Hardrath. October 1956. 54p. diagrs., photos., tabs. (NACA TN 3816. Supersedes RM L55D15a)

A STUDY OF THE "TOSS FACTOR" IN THE IMPACT TESTING OF CERMETS BY THE IZOD PENDULUM TEST. H. B. Probst and Howard T. McHenry. February 1957. 13p. diagrs., photo., tab. (NACA TN 3931)

A STUDY OF THE IMPACT BEHAVIOR OF HIGH-TEMPERATURE MATERIALS. H. B. Probst and Howard T. McHenry. March 1957. 23p. diagrs., photos., tabs. (NACA TN 3894)

STATIC STRENGTH OF CROSS-GRAIN 7075-T6 ALUMINUM-ALLOY EXTRUDED BAR CONTAINING FATIGUE CRACKS. Walter Illg and Arthur J. McEvily, Jr. April 1957. 25p. diagrs., photos., tabs. (NACA TN 3994)

A VARIATIONAL THEOREM FOR CREEP WITH APPLICATIONS TO PLATES AND COLUMNS. J. Lyell Sanders, Jr., Harvey G. McComb, Jr., and Floyd R. Schlechte. May 1957. 23p. diagrs. (NACA TN 4003)

THE COMBINATIONS OF THERMAL AND LOAD STRESSES FOR THE ONSET OF PERMANENT BUCKLING IN PLATES. George W. Zender and Richard A. Pride. June 1957. 10p. diagrs., photo. (NACA TN 4053)

(5.3)
Operating Stresses and Conditions

ENGINE PERFORMANCE OF PRECISION-FORGED, ELECTRO-POLISHED AND MACHINED BLADES OF NIMONIC 80 AND 80A ALLOYS. Paul F. Sikora and James R. Johnston. April 1955. 27p. diagrs., photos., tabs. (NACA RM E55A21)

SOME DESIGN IMPLICATIONS OF THE EFFECTS OF AERODYNAMIC HEATING. Richard R. Heldenfels. July 1955. 26p. diagrs. (NACA RM L55F22)

THE DESIGN OF BRITTLE-MATERIAL BLADE ROOTS BASED ON THEORY AND RUPTURE TESTS OF PLASTIC MODELS. André J. Meyer, Jr., Albert Kaufman, and William C. Caywood. September 1956. 46p. diagrs., photos., tab. (NACA TN 3773. Supersedes RM E53C12)

EFFECT OF FIBER ORIENTATION ON BALL FAILURES UNDER ROLLING-CONTACT CONDITIONS. Robert H. Butler, H. Robert Bear, and Thomas L. Carter. February 1957. 35p. diagrs., photos., tabs. (NACA TN 3933)

SURVEY OF MICROSTRUCTURES AND MECHANICAL PROPERTIES OF OVERTEMPERATURED S-816 TURBINE BUCKETS FROM J47 ENGINES. S. Floreen and R. A. Signorelli. March 1957. 41p. diagrs., photos., tabs. (NACA RM E56K30)

PRELIMINARY METALLOGRAPHIC STUDIES OF BALL FATIGUE UNDER ROLLING-CONTACT CONDITIONS. H. Robert Bear and Robert H. Butler. March 1957. 38p. diagrs., photos. (NACA TN 3925)

STRESS-LIFE RELATION OF THE ROLLING-CONTACT FATIGUE SPIN RIG. Robert H. Butler and Thomas L. Carter. March 1957. 23p. diagrs., photos., tabs. (NACA TN 3930)

(5.3.2)
PROPULSION SYSTEM

INVESTIGATION OF MECHANICAL FASTENINGS FOR SOLID TURBINE BLADES MADE FROM DUCTILE MATERIALS. André J. Meyer, Jr., Albert Kaufman, and W. C. Caywood. August 1954. 45p. diagrs., photos., tabs. (NACA RM E54E21)

AN EXPERIMENTAL EVALUATION OF SEVERAL DESIGN VARIATIONS OF HOLLOW TURBINE BLADES FOR EXPENDABLE ENGINE APPLICATION. W. C. Morgan and R. H. Kemp. February 1955. 33p. diagr., photos., tabs. (NACA RM E54K23)

PRELIMINARY INVESTIGATION OF GUY ALLOY AS A TURBOJET-ENGINE BUCKET MATERIAL FOR USE AT 1650° F. R. A. Signorelli, J. R. Johnston, and J. W. Weeton. November 1956. 22p. diagrs., photos., tab. (NACA RM E56I19)

EVALUATION OF THE USE OF ELECTRICAL RESISTANCE FOR DETECTING OVERTEMPERATURED S-816 TURBINE BLADES. Leonard Robins. March 1957. 22p. diagrs., photos., tabs. (NACA RM E57A29a)

(6)
METEOROLOGY

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FLIGHT INVESTIGATION OF THE PERFORMANCE OF A TWO-STAGE SOLID-PROPELLANT NIKE-DEACON (DAN) METEOROLOGICAL SOUNDING ROCKET. Robert H. Heitkotter. July 1956. 21p. diagrs., photos. (NACA TN 3739)

STATISTICAL STUDY OF AIRCRAFT ICING PROBABILITIES AT THE 700- AND 500-MILLIBAR LEVELS OVER OCEAN AREAS IN THE NORTHERN HEMISPHERE. Porter J. Perkins, William Lewis, and Donald R. Mulholland. May 1957. 31p. diagrs., tabs. (NACA TN 3984)

(6.1) Atmosphere

PROPAGATION OF SOUND INTO A WIND-CREATED SHADOW ZONE. David C. Pridmore-Brown, Massachusetts Institute of Technology. April 1957. 25p. diagrs. (NACA RM 57B25)

THE EFFECT OF SOLID ADMIXTURES ON THE VELOCITY OF MOTION OF A FREE DUSTY AIR JET. (K Voprosu o Vliyanii Tverdykh Primecei na Skorost' Dvizheniya Svobodnoi Pylevozdushnoi Strui). A. P. Chernov. April 1957. 7p. diagr. (NACA TM 1430. Translation from Zhurnal Tekhnicheskoi Fiziki, v. 26, no. 5, 1956, p. 1060-1063)

(6.1.2) GUSTS

SUMMARY OF DERIVED GUST VELOCITIES OBTAINED FROM MEASUREMENTS WITHIN THUNDERSTORMS. H. B. Tolefson. 1956. ii, 7p. diagrs., tabs. (NACA Rept. 1285. Supersedes TN 3538)

AN INVESTIGATION OF VERTICAL-WIND-SHEAR INTENSITIES FROM BALLOON SOUNDINGS FOR APPLICATION TO AIRPLANE- AND MISSILE-RESPONSE PROBLEMS. H. B. Tolefson. July 1956. 33p. diagrs., tabs. (NACA TN 3732)

AN ANALYSIS OF AIRSPEED, ALTITUDE, AND ACCELERATION DATA OBTAINED FROM A TWIN-ENGINE TRANSPORT AIRPLANE OPERATED OVER A FEEDER-LINE ROUTE IN THE ROCKY MOUNTAINS. Martin R. Copp and Mary W. Fetner. October 1956. 23p. diagrs., tabs. (NACA TN 3750)

PRELIMINARY MEASUREMENTS OF ATMOSPHERIC TURBULENCE AT HIGH ALTITUDE AS DETERMINED FROM ACCELERATION MEASUREMENTS ON LOCKHEED U-2 AIRPLANE. Thomas L. Coleman and Jack Funk. March 1957. 14p. diagrs., tab. (NACA RM L57A11)

(6.1.2.1) STRUCTURE

AN INVESTIGATION OF THE LOADS ON THE VERTICAL TAIL OF A JET-BOMBER AIRPLANE RESULTING FROM FLIGHT THROUGH ROUGH AIR. Jack Funk and Richard H. Rhyne. October 1956. 36p. diagrs., tabs. (NACA TN 3741)

(6.1.2.2) FREQUENCY

AN INVESTIGATION OF THE LOADS ON THE VERTICAL TAIL OF A JET-BOMBER AIRPLANE RESULTING FROM FLIGHT THROUGH ROUGH AIR. Jack Funk and Richard H. Rhyne. October 1956. 36p. diagrs., tabs. (NACA TN 3741)

(6.1.2.3) TURBULENCE

EFFECTS OF WING-MOUNTED TANK-TYPE STORES ON THE LOW-LIFT BUFFETING AND DRAG OF A SWEPT-WING AIRPLANE CONFIGURATION BETWEEN MACH NUMBERS OF 0.8 AND 1.3. Homer P. Mason. October 1955. 34p. diagrs., photos., tabs. (NACA RM L55D27)

A REEVALUATION OF DATA ON ATMOSPHERIC TURBULENCE AND AIRPLANE GUST LOADS FOR APPLICATION IN SPECTRAL CALCULATIONS. Harry Press, May T. Meadows, and Ivan Hadlock. 1956. ii, 29p. diagrs., tabs. (NACA Rept. 1272. Supersedes TN 3362; TN 3540)

AN INVESTIGATION OF THE LOADS ON THE VERTICAL TAIL OF A JET-BOMBER AIRPLANE RESULTING FROM FLIGHT THROUGH ROUGH AIR. Jack Funk and Richard H. Rhyne. October 1956. 36p. diagrs., tabs. (NACA TN 3741)

THEORETICAL CALCULATION OF THE POWER SPECTRA OF THE ROLLING AND YAWING MOMENTS ON A WING IN RANDOM TURBULENCE. John M. Eggleston and Franklin W. Diederich. December 1956. 56p. diagrs., tabs. (NACA TN 3864)

EFFECT OF SPANWISE VARIATIONS IN GUST INTENSITY ON THE LIFT DUE TO ATMOSPHERIC TURBULENCE. Franklin W. Diederich and Joseph A. Drischler. April 1957. 56p. diagrs., tabs. (NACA TN 3920)

A LIMITED CORRELATION OF ATMOSPHERIC SOUNDING DATA AND TURBULENCE EXPERIENCED BY ROCKET-POWERED MODELS. Homer P. Mason and William N. Gardner. April 1957. 51p. diagrs., tab. (NACA TN 3953)

A THEORY FOR THE LATERAL RESPONSE OF AIRPLANES TO RANDOM ATMOSPHERIC TURBULENCE. John M. Eggleston. May 1957. 1, 75p. diagrs., tabs. (NACA TN 3954)

(6.1.2.4) ALLEVIATION

INITIAL RESULTS OF A FLIGHT INVESTIGATION OF THE WING AND TAIL LOADS ON AN AIRPLANE EQUIPPED WITH A VANE-CONTROLLED GUST-ALLEVIATION SYSTEM. T. V. Cooney and Russell L. Schott. September 1956. 31p. diagrs., photos. (NACA TN 3746)

INVESTIGATION AT TRANSONIC SPEEDS OF DEFLECTORS AND SPOILERS AS GUST ALLEVIATORS ON A 35° SWEPT WING. TRANSONIC-BUMP METHOD. Delwin R. Croom and Jarrett K. Huffman. June 1957. 19p. diagrs. (NACA TN 4006)

LOADS IMPLICATIONS OF GUST-ALLEVIATION SYSTEMS. William H. Phillips. June 1957. 11p. diagrs., tab. (NACA TN 4056)

INVESTIGATION AT LOW SPEEDS OF DEFLECTORS AND SPOILERS AS GUST ALLEVIATORS ON A MODEL OF THE BELL X-5 AIRPLANE WITH 35° SWEPT WINGS AND ON A HIGH-ASPECT-RATIO 35° SWEPT-WING—FUSELAGE MODEL. Delwin R. Croom and Jarrett K. Huffman. June 1957. 37p. diagrs., tab. (NACA TN 4057)

(6.2)
Ice Formation

USE OF TRUNCATED FLAPPED AIRFOILS FOR IMPINGEMENT AND ICING TESTS OF FULL-SCALE LEADING-EDGE SECTIONS. Uwe H. von Glahn. July 1956. 29p. diagrs., photos., tabs. (NACA RM E56E11)

IMPINGEMENT OF DROPLETS IN 60° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Paul G. Saper, and Charles F. Kadow. October 1956. 54p. diagrs., tabs. (NACA TN 3770)

INVESTIGATION OF HEAT TRANSFER FROM A STATIONARY AND ROTATING ELLIPSOIDAL FOREBODY OF FINENESS RATIO 3. James P. Lewis and Robert S. Ruggeri. November 1956. 46p. diagrs., photo., tabs. (NACA TN 3837)

EXPERIMENTAL DROPLET IMPINGEMENT ON SEVERAL TWO-DIMENSIONAL AIRFOILS WITH THICKNESS RATIOS OF 6 TO 16 PERCENT. Thomas F. Gelder, William H. Smyers, Jr., and Uwe von Glahn. December 1956. 77p. diagrs., photos., tabs. (NACA TN 3839)

STATISTICAL STUDY OF AIRCRAFT ICING PROBABILITIES AT THE 700- AND 500-MILLIBAR LEVELS OVER OCEAN AREAS IN THE NORTHERN HEMISPHERE. Porter J. Perkins, William Lewis, and Donald R. Mulholland. May 1957. 31p. diagrs., tabs. (NACA TN 3984)

(7)
OPERATING PROBLEMS

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DYNAMIC LONGITUDINAL STABILITY AND CONTROL OF TANDEM-COUPLED BOMBER-FIGHTER AIRPLANE MODELS WITH RIGID AND PITCH-FREE COUPLINGS. David C. Grana and Donald E. Hewes. January 22, 1951. 12p. diagrs., tabs. (NACA RM L50L14)

SUMMARY OF DERIVED GUST VELOCITIES OBTAINED FROM MEASUREMENTS WITHIN THUNDERSTORMS. H. B. Tolefson. 1956. ii, 7p. diagrs., tabs. (NACA Rept. 1285. Supersedes TN 3538)

ENGINE PERFORMANCE OF OVERTEMPERATURE HEAT-TREATED S-816 BUCKETS. R. A. Signorelli, F. B. Garrett, and J. W. Weeton. March 1956. 26p. diagrs., tabs. (NACA RM E55L06a)

AN INVESTIGATION OF VERTICAL-WIND-SHEAR INTENSITIES FROM BALLOON SOUNDINGS FOR APPLICATION TO AIRPLANE- AND MISSILE-RESPONSE PROBLEMS. H. B. Tolefson. July 1956. 33p. diagrs., tabs. (NACA TN 3732)

AN ANALYSIS OF AIRSPEED, ALTITUDE, AND ACCELERATION DATA OBTAINED FROM A TWIN-ENGINE TRANSPORT AIRPLANE OPERATED OVER A FEEDER-LINE ROUTE IN THE ROCKY MOUNTAINS. Martin R. Copp and Mary W. Fetner. October 1956. 23p. diagrs., tabs. (NACA TN 3750)

CRASH INJURY. Gerard J. Pesman and A. Martin Eiband. November 1956. 36p. diagrs., photos. (NACA TN 3775)

PRELIMINARY MEASUREMENTS OF ATMOSPHERIC TURBULENCE AT HIGH ALTITUDE AS DETERMINED FROM ACCELERATION MEASUREMENTS ON LOCKHEED U-2 AIRPLANE. Thomas L. Coleman and Jack Funk. March 1957. 14p. diagrs., tab. (NACA RM L57A11)

FULL-SCALE INVESTIGATION OF SEVERAL JET-ENGINE NOISE-REDUCTION NOZZLES. Willard D. Coles and Edmund E. Callaghan. April 1957. 45p. diagrs., photos., tabs. (NACA TN 3974)

(7.1)
Safety

AN INVESTIGATION OF THE SPIN AND RECOVERY CHARACTERISTICS OF A 1/25-SCALE MODEL OF THE DOUGLAS D-558-II AIRPLANE. Stanley H. Scher and Lawrence J. Gale. January 18, 1949. 29p. diagrs., photos., tabs. (NACA RM L8K19a)

SEAT DESIGN FOR CRASH WORTHINESS. I. Irving Pinkel and Edmund G. Rosenberg. October 1956. 42p. diagrs., photos., tab. (NACA TN 3777)

EFFECT OF PRESSURE ON THE SPONTANEOUS IGNITION TEMPERATURE OF LIQUID FUELS. Cleveland O'Neal, Jr. October 1956. 21p. diagrs., tabs. (NACA TN 3829)

CRASH INJURY. Gerard J. Pesman and A. Martin Eiband. November 1956. 36p. diagrs., photos. (NACA TN 3775)

PROPOSED INITIATING SYSTEM FOR CRASH-FIRE PREVENTION SYSTEMS. Jacob C. Moser and Dugald O. Black. December 1956. 18p. diagrs. (NACA TN 3774)

IDENTIFICATION OF FOREIGN OBJECTS DAMAGING COMPRESSOR BLADES IN TURBOJET ENGINES. A. E. Spakowski and J. Graab. January 1957. 12p. photos., tabs. (NACA RM E56J12)

INVESTIGATION OF A FULL-SCALE, CASCADE-TYPE THRUST REVERSER. Robert C. Kohl and Joseph S. Algranti. April 1957. 53p. diagrs., photos. (NACA TN 3975)

ORIGIN AND PREVENTION OF CRASH FIRES IN TURBOJET AIRCRAFT. I. Irving Pinkel, Solomon Weiss, G. Merritt Preston, and Gerard J. Pesman. May 1957. 65p. diagrs., photos., tab. (NACA TN 3973)

(7.3)
Ice Prevention and Removal

USE OF TRUNCATED FLAPPED AIRFOILS FOR IMPINGEMENT AND ICING TESTS OF FULL-SCALE LEADING-EDGE SECTIONS. Uwe H. von Glahn. July 1956. 29p. diagrs., photos., tabs. (NACA RM E56E11)

EXPERIMENTAL DROPLET IMPINGEMENT ON SEVERAL TWO-DIMENSIONAL AIRFOILS WITH THICKNESS RATIOS OF 6 TO 16 PERCENT. Thomas F. Gelder, William H. Smyers, Jr., and Uwe von Glahn. December 1956. 77p. diagrs., photos., tabs. (NACA TN 3839)

(7.3.1)
ENGINE INDUCTION SYSTEMS

IMPINGEMENT OF DROPLETS IN 60° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Paul G. Saper, and Charles F. Kadow. October 1956. 54p. diagrs., tabs. (NACA TN 3770)

(7.3.3)
WINGS AND TAILS

USE OF TRUNCATED FLAPPED AIRFOILS FOR IMPINGEMENT AND ICING TESTS OF FULL-SCALE LEADING-EDGE SECTIONS. Uwe H. von Glahn. July 1956. 29p. diagrs., photos., tabs. (NACA RM E56E11)

(7.3.5)
MISCELLANEOUS ACCESSORIES

IMPINGEMENT OF DROPLETS IN 60° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Paul G. Saper, and Charles F. Kadow. October 1956. 54p. diagrs., tabs. (NACA TN 3770)

(7.4)
Noise

AN INVESTIGATION OF JET EFFECTS ON ADJACENT SURFACES. Walter E. Bressette and Maxime A. Faget. June 1955. 13p. diagrs. (NACA RM L55E06)

THE NEAR NOISE FIELD OF STATIC JETS AND SOME MODEL STUDIES OF DEVICES FOR NOISE REDUCTION. Leslie W. Lassiter and Harvey H. Hubbard. 1956. i, 12p. diagrs., photos. (NACA Rept. 1261. Supersedes TN 3187)

INTENSITY, SCALE, AND SPECTRA OF TURBULENCE IN MIXING REGION OF FREE SUBSONIC JET. James C. Laurence. 1956. ii, 27p. diagrs., photo., tab. (NACA Rept. 1292. Supersedes TN 3561; TN 3576)

NEAR NOISE FIELD OF A JET-ENGINE EXHAUST. II - CROSS CORRELATION OF SOUND PRESSURES. Edmund E. Callaghan, Walton L. Howes, and Willard D. Coles. Appendix: CORRELATION COMPUTER. Channing C. Conger and Donald F. Berg. September 1956. 53p. diagrs., photos., tab. (NACA TN 3764)

TENTATIVE METHOD FOR CALCULATION OF THE SOUND FIELD ABOUT A SOURCE OVER GROUND CONSIDERING DIFFRACTION AND SCATTERING INTO SHADOW ZONES. David C. Pridmore-Brown and Uno Ingard, Massachusetts Institute of Technology. September 1956. 33p. diagrs. (NACA TN 3779)

NEAR NOISE FIELD OF A JET-ENGINE EXHAUST. I - SOUND PRESSURES. Walton L. Howes and Harold R. Mull. October 1956. 51p. diagrs., photos. (NACA TN 3763)

A METHOD FOR CALCULATION OF FREE-SPACE SOUND PRESSURES NEAR A PROPELLER IN FLIGHT INCLUDING CONSIDERATIONS OF THE CHORDWISE BLADE LOADING. Charles E. Watkins and Barbara J. Durling. November 1956. 68p. diagrs., tabs. (NACA TN 3809)

ON THE CONTRIBUTION OF TURBULENT BOUNDARY LAYERS TO THE NOISE INSIDE A FUSELAGE. G. M. Corcos and H. W. Liepmann, Douglas Aircraft Company, Inc. December 1956. (iii), 43p. diagrs. (NACA TM 1420)

PROPAGATION OF SOUND INTO A WIND-CREATED SHADOW ZONE. David C. Pridmore-Brown, Massachusetts Institute of Technology. April 1957. 25p. diagrs. (NACA RM 57B25)

FULL-SCALE INVESTIGATION OF SEVERAL JET-ENGINE NOISE-REDUCTION NOZZLES. Willard D. Coles and Edmund E. Callaghan. April 1957. 45p. diagrs., photos., tabs. (NACA TN 3974)

SURVEY OF THE ACOUSTIC NEAR FIELD OF THREE NOZZLES AT A PRESSURE RATIO OF 30. Harold R. Mull and John C. Erickson, Jr. April 1957. 32p. diagrs., photos. (NACA TN 3978)

(7.7)
Piloting Techniques

AN INVESTIGATION OF THE SPIN AND RECOVERY CHARACTERISTICS OF A 1/25-SCALE MODEL OF THE DOUGLAS D-558-II AIRPLANE. Stanley H. Scher and Lawrence J. Gale. January 18, 1949. 29p. diagrs., photos., tabs. (NACA RM L8K19a)

EFFECT OF AREA-SUCTION-TYPE BOUNDARY-LAYER CONTROL ON THE LANDING-APPROACH CHARACTERISTICS OF A 35° SWEPT-WING FIGHTER. George E. Cooper and Robert C. Innis. February 1956. 35p. diagrs., photos., tabs. (NACA RM A55K14)

FLIGHT MEASUREMENTS OF THE LOW-SPEED CHARACTERISTICS OF A 35° SWEPT-WING AIRPLANE WITH AREA-SUCTION BOUNDARY-LAYER CONTROL ON THE FLAPS. Seth B. Anderson and Hervey C. Quigley. February 1956. 35p. diagrs., photos., tab. (NACA RM A55K29)

FLIGHT MEASUREMENTS OF THE LOW-SPEED CHARACTERISTICS OF A 35° SWEPT-WING AIRPLANE WITH BLOWING-TYPE BOUNDARY-LAYER CONTROL ON THE TRAILING-EDGE FLAPS. Seth B. Anderson, Hervey C. Quigley, and Robert C. Innis. October 1956. 52p. diagrs., photos., tabs. (NACA RM A56G30)

INSTRUMENT FLIGHT TRIALS WITH A HELICOPTER STABILIZED IN ATTITUDE ABOUT EACH AXIS INDIVIDUALLY. Seymour Salmirs and Robert J. Tapscott. January 1957. 17p. diagrs., photo.. (NACA TN 3947)

(7.8)
Physiological

A FLIGHT INVESTIGATION OF THE EFFECTS OF VARIED LATERAL DAMPING ON THE EFFECTIVENESS OF A FIGHTER AIRPLANE AS A GUN PLATFORM. Helmut A. Kuehnel, Arnold R. Beckhardt, and Robert A. Champine. August 1953. 30p. diagrs., photo., tabs. (NACA RM L53F08a)

A PRELIMINARY STUDY BY MEANS OF ELECTRICAL FREQUENCY-ANALYSIS TECHNIQUES OF THE RESPONSE OF AN AIRPLANE STRUCTURE DURING BUFFETING. John E. Yeates, Jr., and Jim Rogers Thompson. December 1953. 41p. diagrs., tab. (NACA RM L53G31)

(7.9)
Fire Hazards

PROPOSED INITIATING SYSTEM FOR CRASH-FIRE PREVENTION SYSTEMS. Jacob C. Moser and Dugald O. Black. December 1956. 18p. diagrs. (NACA TN 3774)

ORIGIN AND PREVENTION OF CRASH FIRES IN TURBOJET AIRCRAFT. I. Irving Pinkel, Solomon Weiss, G. Merritt Preston, and Gerard J. Pesman. May 1957. 65p. diagrs., photos., tab. (NACA TN 3973)

APPRAISAL OF THE HAZARDS OF FRICTION-SPARK IGNITION OF AIRCRAFT CRASH FIRES. John A. Campbell. May 1957. 23p. photos., tabs. (NACA TN 4024)

(7.10)
General

SEAT DESIGN FOR CRASH WORTHINESS. I. Irving Pinkel and Edmund G. Rosenberg. October 1956. 42p. diagrs., photos., tab. (NACA TN 3777)

IDENTIFICATION OF FOREIGN OBJECTS DAMAGING COMPRESSOR BLADES IN TURBOJET ENGINES. A. E. Spakowski and J. Graab. January 1957. 12p. photos., tabs. (NACA RM E56J12)

A LIMITED CORRELATION OF ATMOSPHERIC SOUNDING DATA AND TURBULENCE EXPERIENCED BY ROCKET-POWERED MODELS. Homer P. Mason and William N. Gardner. April 1957. 51p. diagrs., tab. (NACA TN 3953)

FULL-SCALE INVESTIGATION OF SEVERAL JET-ENGINE NOISE-REDUCTION NOZZLES. Willard D. Coles and Edmund E. Callaghan. April 1957. 45p. diagrs., photos., tabs. (NACA TN 3974)

EXPLORATORY STUDY OF GROUND PROXIMITY EFFECTS ON THRUST OF ANNULAR AND CIRCULAR NOZZLES. Uwe H. von Glahn. April 1957. 48p. diagrs., photos. (NACA TN 3982)

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INSTRUMENTS

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INSTRUMENTS

INTENSITY, SCALE, AND SPECTRA OF TURBULENCE IN MIXING REGION OF FREE SUBSONIC JET. James C. Laurence. 1956. ii, 27p. diagrs., photo., tab. (NACA Rept. 1292. Supersedes TN 3561; TN 3576)

RADIATION AND RECOVERY CORRECTIONS AND TIME CONSTANTS OF SEVERAL CHROMEL-ALUMEL THERMOCOUPLE PROBES IN HIGH-TEMPERATURE, HIGH-VELOCITY GAS STREAMS. George E. Glawe, Frederick S. Simmons, and Truman M. Stickney. October 1956. 25p. diagrs., photo., tabs. (NACA TN 3766)

FLIGHT INVESTIGATION OF A ROLL-STABILIZED MISSILE CONFIGURATION AT VARYING ANGLES OF ATTACK AT MACH NUMBERS BETWEEN 0.8 AND 1.79. Jacob Zarovsky and Robert A. Gardiner. January 1957. 36p. diagrs., photos., tab. (NACA TN 3915. Supersedes RM L50H21)

EXPERIMENTAL STUDY OF HEAT TRANSFER TO SMALL CYLINDERS IN A SUBSONIC, HIGH-TEMPERATURE GAS STREAM. George E. Glawe and Robert C. Johnson. APPENDIX C: METHOD USED TO COMPUTE VISCOSITY AND THERMAL CONDUCTIVITY OF COMBUSTION GAS MIXTURES. Richard S. Brokaw and Robert C. Johnson. May 1957. 21p. diagrs., photo. (NACA TN 3934)

(8.1)
Flight

INSTRUMENTATION AND CALIBRATION OF TECHNIQUE FOR FLIGHT CALIBRATION OF ANGLE-OF-ATTACK SYSTEMS ON AIRCRAFT. Norman M. McFadden, George R. Holden, and Jack W. Ratcliff. December 1952. 30p. diagrs., photos., tabs. (NACA RM A52I23)

A METHOD OF MEASURING JET THRUST OF TURBOJET ENGINES IN FLIGHT INSTALLATIONS. Joseph N. Sivo and David B. Fenn. January 1954. 19p. diagrs., photo. (NACA RM E53J15)

FLIGHT TECHNIQUES FOR DETERMINING AIRPLANE DRAG AT HIGH MACH NUMBERS. De E. Beeler, Donald R. Bellman, and Edwin J. Saltzman. (Presented to Flight Test Panel of Advisory Group for Aeronautical Research and Development, Brussels, Belgium, August 27-31, 1956). August 1956. 40p. diagrs., photos. (NACA TN 3821)

AN AIR-FLOW-DIRECTION PICKUP SUITABLE FOR TELEMETERING USE ON PILOTLESS AIRCRAFT. Wallace L. Ikard. October 1956. 25p. diagrs., photos. (NACA TN 3799. Supersedes RM L53K16)

WIND-TUNNEL CALIBRATION OF A COMBINED PITOT-STATIC TUBE AND VANE-TYPE FLOW-ANGULARITY INDICATOR AT MACH NUMBERS OF 1.61 AND 2.01. Archibald R. Sinclair and William D. Mace. October 1956. 11p. diagrs., photo. (NACA TN 3808)

CHARACTERISTICS OF A 40° CONE FOR MEASURING MACH NUMBER, TOTAL PRESSURE, AND FLOW ANGLES AT SUPERSONIC SPEEDS. Frank J. Centolanzi. May 1957. 36p. diagrs. (NACA TN 3967)

(8.2)
Laboratory

A SELF-BALANCING LINE-REVERSAL PYROMETER. Donald Buchele. August 1956. 68p. diagrs., photos., tabs. (NACA TN 3656)

METHODS FOR MEASURING TEMPERATURES OF THIN-WALLED GAS-TURBINE BLADES. Francis S. Stepka and Robert O. Hickel. November 1956. 25p. diagrs., photos., tab. (NACA RM E56G17)

THEORY AND DESIGN OF A PNEUMATIC TEMPERATURE PROBE AND EXPERIMENTAL RESULTS OBTAINED IN A HIGH-TEMPERATURE GAS STREAM. Frederick S. Simmons and George E. Glawe. January 1957. 41p. diagrs., photo. (NACA TN 3893)

MEASUREMENTS OF THE NONLINEAR VARIATION WITH TEMPERATURE OF HEAT-TRANSFER RATE FROM HOT WIRES IN TRANSONIC AND SUPERSONIC FLOW. Warren Winovich and Howard A. Stine. April 1957. 33p. diagrs., photo., tab. (NACA TN 3965)

CHARACTERISTICS OF A 40° CONE FOR MEASURING MACH NUMBER, TOTAL PRESSURE, AND FLOW ANGLES AT SUPERSONIC SPEEDS. Frank J. Centolanzi. May 1957. 36p. diagrs. (NACA TN 3967)

(8.3)
Meteorological

AN INVESTIGATION OF VERTICAL-WIND-SHEAR INTENSITIES FROM BALLOON SOUNDINGS FOR APPLICATION TO AIRPLANE- AND MISSILE-RESPONSE PROBLEMS. H. B. Tolefson. July 1956. 33p. diagrs., tabs. (NACA TN 3732)

FLIGHT INVESTIGATION OF THE PERFORMANCE OF A TWO-STAGE SOLID-PROPELLANT NIKE-DEACON (DAN) METEOROLOGICAL SOUNDING ROCKET. Robert H. Heitkotter. July 1956. 21p. diagrs., photos. (NACA TN 3739)

(9)
RESEARCH EQUIPMENT AND TECHNIQUES

(9)
RESEARCH EQUIPMENT AND TECHNIQUES

A PRESSURE-DISTRIBUTION INVESTIGATION OF A SUPERSONIC AIRCRAFT FUSELAGE AND CALIBRATION OF THE MACH NUMBER 1.59 NOZZLE OF THE LANGLEY 4- BY 4-FOOT SUPERSONIC TUNNEL. Morton Cooper, Norman F. Smith, and Julian H. Kainer. July 29, 1949. 51p. diagrs., photos., tabs. (NACA RM L9E27a)

MEASUREMENTS AND PREDICTIONS OF FLOW CONDITIONS ON A TWO-DIMENSIONAL BASE SEPARATING A MACH NUMBER 3.36 JET AND A MACH NUMBER 1.55 OUTER STREAM. Donald E. Coletti. May 1954. 56p. diagrs., photos. (NACA RM L54C08)

EFFECTS OF COMBINING AUXILIARY BLEED WITH EJECTOR PUMPING ON THE POWER REQUIREMENTS AND TEST-SECTION FLOW OF AN 8-INCH BY 8-INCH SLOTTED TUNNEL. B. H. Little, Jr., and James M. Cubbage, Jr. July 1955. 44p. diagrs., photo. (NACA RM L55E25)

A METHOD FOR SIMULATING THE ATMOSPHERIC ENTRY OF LONG-RANGE BALLISTIC MISSILES. A. J. Eggers, Jr. December 1955. 19p. diagr. (NACA RM A55I15)

ON LANDING GEAR STRESSES. (Sur les Sollicitations des Atterrisseurs). A. Gentric. July 1956. 45p. diagrs., photos. (NACA TM 1422. Trans. from Docaéro, no.25, January 1954, p.17-38).

(9.1)
Equipment

CHARACTERISTICS OF A 40° CONE FOR MEASURING MACH NUMBER, TOTAL PRESSURE, AND FLOW ANGLES AT SUPERSONIC SPEEDS. Frank J. Centolanzi. May 1957. 36p. diagrs. (NACA TN 3967)

THERMODYNAMIC STUDY OF A ROOTS COMPRESSOR AS A SOURCE OF HIGH-TEMPERATURE AIR. Clarence B. Cohen, Richard R. Woollett, and Kenneth C. Weston. June 1957. 34p. diagrs., tab. (NACA TN 4025)

A WIDE-FREQUENCY-RANGE AIR-JET SHAKER. Robert W. Herr. June 1957. 15p. diagrs. (NACA TN 4060)

(9.1.1)
WIND TUNNELS

A PRESSURE-DISTRIBUTION INVESTIGATION OF A SUPERSONIC AIRCRAFT FUSELAGE AND CALIBRATION OF THE MACH NUMBER 1.59 NOZZLE OF THE LANGLEY 4- BY 4-FOOT SUPERSONIC TUNNEL. Morton Cooper, Norman F. Smith, and Julian H. Kainer. July 29, 1949. 51p. diagrs., photos., tabs. (NACA RM L9E27a)

EFFECTS OF CERTAIN FLOW NONUNIFORMITIES ON LIFT, DRAG, AND PITCHING MOMENT FOR A TRANSONIC-AIRPLANE MODEL INVESTIGATED AT A MACH NUMBER OF 1.2 IN A NOZZLE OF CIRCULAR CROSS SECTION. Virgil S. Ritchie. August 31, 1949. 12p. diagrs., photo. (NACA RM L9E20a)

A STUDY OF THE USE OF FREON-12 AS A WIND-TUNNEL TESTING MEDIUM AT LOW SUPERSONIC MACH NUMBERS. Milton A. Schwartzberg. November 1952. 24p. diagrs., photo. (NACA RM L52J07)

EFFECTS OF SLOT SIZE AND GEOMETRY ON THE FLOW IN RECTANGULAR TUNNELS AT MACH NUMBERS UP TO 1.4. William J. Nelson and James M. Cubbage, Jr. April 1953. 43p. diagrs., photos., tab. (NACA RM L53B16)

AN INVESTIGATION OF STING-SUPPORT INTERFERENCE ON BASE PRESSURE AND FOREBODY CHORD FORCE AT MACH NUMBERS FROM 0.60 TO 1.30. Phillips J. Tunnell. January 1955. 19p. diagrs. (NACA RM A54K16a)

EFFECTS OF COMBINING AUXILIARY BLEED WITH EJECTOR PUMPING ON THE POWER REQUIREMENTS AND TEST-SECTION FLOW OF AN 8-INCH BY 8-INCH SLOTTED TUNNEL. B. H. Little, Jr., and James M. Cubbage, Jr. July 1955. 44p. diagrs., photo. (NACA RM L55E25)

SOME POSSIBILITIES OF USING GAS MIXTURES OTHER THAN AIR IN AERODYNAMIC RESEARCH. Dean R. Chapman. 1956. ii, 22p. diagrs., tabs. (NACA Rept. 1259. Supersedes TN 3226)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE EFFECT OF TUNNEL WALLS ON THE FORCES ON AN OSCILLATING AIRFOIL IN TWO-DIMENSIONAL SUBSONIC COMPRESSIBLE FLOW. Harry L. Runyan, Donald S. Woolston, and A. Gerald Rainey. 1956. ii, 21p. diagrs. (NACA Rept. 1262. Supersedes TN 3416)

MEASUREMENTS OF BOUNDARY-LAYER TRANSITION AT LOW SPEED ON TWO BODIES OF REVOLUTION IN A LOW-TURBULENCE WIND TUNNEL. Frederick W. Boltz, George C. Kenyon, and Clyde Q. Allen. September 1956. 14p. diagrs., photos., tabs. (NACA RM A56G17)

AN EXPERIMENTAL INVESTIGATION OF STING-SUPPORT EFFECTS ON DRAG AND A COMPARISON WITH JET EFFECTS AT TRANSONIC SPEEDS. Maurice S. Cahn. September 1956. 67p. diagrs., tabs. (NACA RM L56F18a)

SIMILITUDE RELATIONS FOR FREE-MODEL WIND-TUNNEL STUDIES OF STORE-DROPPING PROBLEMS. Carl A. Sandahl and Maxime A. Faget. January 1957. 26p. diagrs., photos., tab. (NACA TN 3907)

WALL INTERFERENCE IN A PERFORATED WIND TUNNEL. (Studio dell'Interferenza delle Gallerie Aerodinamiche con Pareti a Fessure). Riccardo Brescia. May 1957. 28p. diagrs. (NACA TM 1429. Translation from Accademia delle Scienze di Torino, Atti, v. 87, 1952-1953)

THERMODYNAMIC STUDY OF A ROOTS COMPRESSOR AS A SOURCE OF HIGH-TEMPERATURE AIR. Clarence B. Cohen, Richard R. Woollett, and Kenneth C. Weston. June 1957. 34p. diagrs., tab. (NACA TN 4025)

(9.1.2)
FREE-FLIGHT

FLIGHT AND WIND-TUNNEL INVESTIGATION TO DETERMINE THE AILERON-VIBRATION CHARACTERISTICS OF 1/4-SCALE WING PANELS OF THE DOUGLAS D-558-2 RESEARCH AIRPLANE. Ellwyn E. Angle and Reginald R. Lundstrom. November 30, 1948. 27p. diagrs., photos., tabs. (NACA RM L8H09)

LONGITUDINAL TRIM AND DRAG CHARACTERISTICS OF ROCKET-PROPELLED MODELS REPRESENTING TWO AIRPLANE CONFIGURATIONS. James H. Parks and Jesse L. Mitchell. February 6, 1950. 25p. diagrs., photos., tab. (NACA RM L9L22)

INSTRUMENTATION AND CALIBRATION OF TECHNIQUE FOR FLIGHT CALIBRATION OF ANGLE-OF-ATTACK SYSTEMS ON AIRCRAFT. Norman M. McFadden, George R. Holden, and Jack W. Ratcliff. December 1952. 30p. diagrs., photos., tabs. (NACA RM A52I23)

DEVELOPMENT OF A NEW FLUTTER TESTING TECHNIQUE USING A TOWED DYNAMIC AIRPLANE MODEL EQUIPPED WITH AN AUTOMATIC STABILIZING SYSTEM. EXPERIMENTAL AND CALCULATED DYNAMIC STABILITY CHARACTERISTICS FOR SPEEDS UP TO 200 MPH. William C. Schneider. March 1955. 50p. diagrs., photo., tabs. (NACA RM L54L23)

SOME POSSIBILITIES OF USING GAS MIXTURES OTHER THAN AIR IN AERODYNAMIC RESEARCH. Dean R. Chapman. 1956. ii, 22p. diagrs., tabs. (NACA Rept. 1259. Supersedes TN 3226)

FLIGHT TECHNIQUES FOR DETERMINING AIRPLANE DRAG AT HIGH MACH NUMBERS. De E. Beeler, Donald R. Bellman, and Edwin J. Saltzman. (Presented to Flight Test Panel of Advisory Group for Aeronautical Research and Development, Brussels, Belgium, August 27-31, 1956). August 1956. 40p. diagrs., photos. (NACA TN 3821)

AN AIR-FLOW-DIRECTION PICKUP SUITABLE FOR TELEMETERING USE ON PILOTLESS AIRCRAFT. Wallace L. Ikard. October 1956. 25p. diagrs., photos. (NACA TN 3799. Supersedes RM L53K16)

WIND-TUNNEL CALIBRATION OF A COMBINED PITOT-STATIC TUBE AND VANE-TYPE FLOW-ANGULARITY INDICATOR AT MACH NUMBERS OF 1.61 AND 2.01. Archibald R. Sinclair and William D. Mace. October 1956. 11p. diagrs., photo. (NACA TN 3808)

FLIGHT INVESTIGATION OF A ROLL-STABILIZED MISSILE CONFIGURATION AT VARYING ANGLES OF ATTACK AT MACH NUMBERS BETWEEN 0.8 AND 1.79. Jacob Zarovsky and Robert A. Gardiner. January 1957. 36p. diagrs., photos., tab. (NACA TN 3915. Supersedes RM L50H21)

(9.1.4)
PROPULSION RESEARCH EQUIPMENT

A METHOD OF MEASURING JET THRUST OF TURBOJET ENGINES IN FLIGHT INSTALLATIONS. Joseph N. Sivo and David B. Fenn. January 1954. 19p. diagrs., photo. (NACA RM E53J15)

SOME POSSIBILITIES OF USING GAS MIXTURES OTHER THAN AIR IN AERODYNAMIC RESEARCH. Dean R. Chapman. 1956. ii, 22p. diagrs., tabs. (NACA Rept. 1259. Supersedes TN 3226)

A SELF-BALANCING LINE-REVERSAL PYROMETER. Donald Buchele. August 1956. 68p. diagrs., photos., tabs. (NACA TN 3656)

FLIGHT TECHNIQUES FOR DETERMINING AIRPLANE DRAG AT HIGH MACH NUMBERS. De E. Beeler, Donald R. Bellman, and Edwin J. Saltzman. (Presented to Flight Test Panel of Advisory Group for Aeronautical Research and Development, Brussels, Belgium, August 27-31, 1956). August 1956. 40p. diagrs., photos. (NACA TN 3821)

FREE-JET TESTS OF A 1.1-INCH-DIAMETER SUPERSONIC RAM-JET ENGINE. Joseph H. Judd and Otto F. Trout, Jr. February 1957. 24p. diagrs., photos., tabs. (NACA TN 3906. Supersedes RM L51L18)

(9.1.5)
PROPELLER

THE EFFECT OF THICKNESS RATIO ON SECTION THRUST DISTRIBUTION AS DETERMINED FROM A STUDY OF WAKE SURVEYS OF THE NACA 4-(0)(03)-045 AND 4-(0)(08)-045 TWO-BLADE PROPELLERS UP TO FORWARD MACH NUMBERS OF 0.925. Daniel E. Harrison and Joseph R. Milillo. April 5, 1951. 62p. diagrs., photo., tabs. (NACA RM L51B05)

INVESTIGATION OF THE NACA 1.167-(0)(03)-058 AND NACA 1.167-(0)(05)-058 THREE-BLADE PROPELLERS AT FORWARD MACH NUMBERS TO 0.92 INCLUDING EFFECTS OF THRUST-AXIS INCLINATION. Fred A. Demele and William R. Otey. August 1953. 61p. diagrs., photos., tabs. (NACA RM A53F16)

(9.1.6)
MATERIALS

HIGH-RESOLUTION AUTORADIOGRAPHY. George C. Towe, Henry J. Gomberg, and J. W. Freeman. University of Michigan. 1955. iii, 52p. diagrs., photos., tabs. (NACA Rept. 1243. Supersedes TN 3209)

PERFORMANCE OF INCONEL 550 TURBINE BLADES IN A TURBOJET ENGINE AND EFFECTS OF DIFFERENT FORGING TEMPERATURES AND HEAT TREATMENTS. C. A. Gyorgak, J. R. Johnston, and J. W. Weeton. August 1955. 55p. diagrs., photos., tabs. (NACA RM E55F08)

HEAT-CAPACITY MEASUREMENTS OF TITANIUM AND OF A HYDRIDE OF TITANIUM FOR TEMPERATURES FROM 4° TO 15° K INCLUDING A DETAILED DESCRIPTION OF A SPECIAL ADIABATIC SPECIFIC-HEAT CALORIMETER. M. H. Aven, R. S. Craig, and W. E. Wallace, University of Pittsburgh. October 1956. 30p. diagrs., tabs. (NACA TN 3787)

FATIGUE TESTS ON NOTCHED AND UNNOTCHED SHEET SPECIMENS OF 2024-T3 AND 7075-T6 ALUMINUM ALLOYS AND OF SAE 4130 STEEL WITH SPECIAL CONSIDERATION OF THE LIFE RANGE FROM 2 TO 10,000 CYCLES. Walter Illg. December 1956. 40p. diagrs., photo., tabs. (NACA TN 3866)

EFFECT OF FIBER ORIENTATION ON BALL FAILURES UNDER ROLLING-CONTACT CONDITIONS. Robert H. Butler, H. Robert Bear, and Thomas L. Carter. February 1957. 35p. diagrs., photos., tabs. (NACA TN 3933)

PRELIMINARY METALLOGRAPHIC STUDIES OF BALL FATIGUE UNDER ROLLING-CONTACT CONDITIONS. H. Robert Bear and Robert H. Butler. March 1957. 38p. diagrs., photos. (NACA TN 3925)

STRESS-LIFE RELATION OF THE ROLLING-CONTACT FATIGUE SPIN RIG. Robert H. Butler and Thomas L. Carter. March 1957. 23p. diagrs., photos., tabs. (NACA TN 3930)

(9.2)
Technique

LONGITUDINAL TRIM AND DRAG CHARACTERISTICS OF ROCKET-PROPELLED MODELS REPRESENTING TWO AIRPLANE CONFIGURATIONS. James H. Parks and Jesse L. Mitchell. February 6, 1950. 25p. diagrs., photos., tab. (NACA RM L9L22)

ROCKET-MODEL INVESTIGATION TO DETERMINE THE FORCE AND HINGE-MOMENT CHARACTERISTICS OF A HALF-DELTA TIP CONTROL ON A 59° SWEPTBACK DELTA WING BETWEEN MACH NUMBERS OF 0.55 AND 1.43. C. William Martz, James D. Church, and John W. Goslee. October 1952. 53p. diagrs., photos., tab. (NACA RM L52H06)

CONTROL HINGE-MOMENT AND EFFECTIVENESS CHARACTERISTICS OF A 60° HALF-DELTA TIP CONTROL ON A 60° DELTA WING AT MACH NUMBERS OF 1.41 AND 1.96. Lawrence D. Guy. October 1952. 40p. diagrs., photo., tab. (NACA RM L52H13)

A PRELIMINARY STUDY BY MEANS OF ELECTRICAL FREQUENCY-ANALYSIS TECHNIQUES OF THE RESPONSE OF AN AIRPLANE STRUCTURE DURING BUFFETING. John E. Yeates, Jr., and Jim Rogers Thompson. December 1953. 41p. diagrs., tab. (NACA RM L53G31)

MEASUREMENT OF THE LONGITUDINAL MOMENT OF INERTIA OF A FLEXIBLE AIRPLANE. Henry A. Cole, Jr., and Frances L. Bennion. November 1956. 30p. diagrs., photos., tabs. (NACA TN 3870. Supersedes RM A55J21)

FLIGHT MEASUREMENTS OF THE VIBRATIONS ENCOUNTERED BY A TANDEM HELICOPTER AND A METHOD FOR MEASURING THE COUPLED RESPONSE IN FLIGHT. John E. Yeates, Jr. December 1956. 28p. diagrs., photo., tab. (NACA TN 3852)

PRESSURE LOSSES OF TITANIA AND MAGNESIUM SLURRIES IN PIPES AND PIPELINE TRANSITIONS. Ruth N. Weltmann and Thomas A. Keller. January 1957. 22p. diagrs., photo., tab. (NACA TN 3889)

(9.2.1)
CORRECTIONS

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. - EFFECTS OF SPLIT FLAPS, ELEVONS, AND LEADING-EDGE DEVICES AT LOW SPEED. Edward J. Hopkins. May 19, 1949. 46p. diagrs., photos. (NACA RM A9C21)

EFFECTS OF CERTAIN FLOW NONUNIFORMITIES ON LIFT, DRAG, AND PITCHING MOMENT FOR A TRANSONIC-AIRPLANE MODEL INVESTIGATED AT A MACH NUMBER OF 1.2 IN A NOZZLE OF CIRCULAR CROSS SECTION. Virgil S. Ritchie. August 31, 1949. 12p. diagrs., photo. (NACA RM L9E20a)

INSTRUMENTATION AND CALIBRATION OF TECHNIQUE FOR FLIGHT CALIBRATION OF ANGLE-OF-ATTACK SYSTEMS ON AIRCRAFT. Norman M. McFadden, George R. Holden, and Jack W. Ratcliff. December 1952. 30p. diagrs., photos., tabs. (NACA RM A52I23)

SOME MEASUREMENTS OF AERODYNAMIC FORCES AND MOMENTS AT SUBSONIC SPEEDS ON A RECTANGULAR WING OF ASPECT RATIO 2 OSCILLATING ABOUT THE MIDCHORD. Edward Widmayer, Jr., Sherman A. Clevenson, and Sumner A. Leadbetter. August 1953. 45p. diagrs., tabs. (NACA RM L53F19)

AN INVESTIGATION OF STING-SUPPORT INTERFERENCE ON BASE PRESSURE AND FOREBODY CHORD FORCE AT MACH NUMBERS FROM 0.60 TO 1.30. Phillips J. Tunnell. January 1955. 19p. diagrs. (NACA RM A54K16a)

THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE EFFECT OF TUNNEL WALLS ON THE FORCES ON AN OSCILLATING AIRFOIL IN TWO-DIMENSIONAL SUBSONIC COMPRESSIBLE FLOW. Harry L. Runyan, Donald S. Woolston, and A. Gerald Rainey. 1956. ii, 21p. diagrs. (NACA Rept. 1262. Supersedes TN 3416)

A SELF-BALANCING LINE-REVERSAL PYROMETER. Donald Buchele. August 1956. 68p. diagrs., photos., tabs. (NACA TN 3656)

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AN EXPERIMENTAL INVESTIGATION OF STING-SUPPORT EFFECTS ON DRAG AND A COMPARISON WITH JET EFFECTS AT TRANSONIC SPEEDS. Maurice S. Cahn. September 1956. 67p. diagrs., tabs. (NACA RM L56F18a)

RADIATION AND RECOVERY CORRECTIONS AND TIME CONSTANTS OF SEVERAL CHROMEL-ALUMEL THERMOCOUPLE PROBES IN HIGH-TEMPERATURE, HIGH-VELOCITY GAS STREAMS. George E. Glawe, Frederick S. Simmons, and Truman M. Stickney. October 1956. 25p. diagrs., photo., tabs. (NACA TN 3766)

LIFT AND PITCHING-MOMENT INTERFERENCE BETWEEN A POINTED CYLINDRICAL BODY AND TRIANGULAR WINGS OF VARIOUS ASPECT RATIOS AT MACH NUMBERS OF 1.50 AND 2.02. Jack N. Nielsen, Elliott D. Katzen, and Kenneth K. Tang. December 1956. 49p. diagrs., photos., tabs. (NACA TN 3795. Supersedes RM A50F06)

THEORY AND DESIGN OF A PNEUMATIC TEMPERATURE PROBE AND EXPERIMENTAL RESULTS OBTAINED IN A HIGH-TEMPERATURE GAS STREAM. Frederick S. Simmons and George E. Glawe. January 1957. 41p. diagrs., photo. (NACA TN 3893)

AN INVESTIGATION AT LOW SPEED OF THE FLOW OVER A SIMULATED FLAT PLATE AT SMALL ANGLES OF ATTACK USING PITOT-STATIC AND HOT-WIRE PROBES. Donald E. Gault. March 1957. 58p. diagrs., photos., tabs. (NACA TN 3876)

TABLES OF VARIOUS MACH NUMBER FUNCTIONS FOR SPECIFIC-HEAT RATIOS FROM 1.28 TO 1.38. Lewis Laboratory Computing Staff. April 1957. 76p. tabs. (NACA TN 3981)

WALL INTERFERENCE IN A PERFORATED WIND TUNNEL. (Studio dell'Interferenza delle Gallerie Aerodinamiche con Pareti a Fessure). Riccardo Brescia. May 1957. 28p. diagrs. (NACA TM 1429. Translation from Accademia delle Scienze di Torino, Atti, v. 87, 1952-1953)

(9.2.2) AERODYNAMICS

FLIGHT INVESTIGATION AT SUBSONIC, TRANSONIC, AND SUPERSONIC VELOCITIES OF THE HINGE-MOMENT CHARACTERISTICS, LATERAL-CONTROL EFFECTIVENESS, AND WING DAMPING IN ROLL OF A 60° SWEPTBACK DELTA WING WITH HALF-DELTA TIP AILERONS. (Revised.) C. William Martz and James D. Church. September 1951. 32p. diagrs., photos. (NACA RM L51G18)

FREE-FLIGHT INVESTIGATION TO DETERMINE FORCE AND HINGE-MOMENT CHARACTERISTICS AT ZERO ANGLE OF ATTACK OF A 60° SWEPTBACK HALF-DELTA TIP CONTROL ON A 60° SWEPTBACK DELTA WING AT MACH NUMBERS BETWEEN 0.68 AND 1.44. C. William Martz, James D. Church, and John W. Goslee. December 1951. 36p. diagrs., photos. (NACA RM L51I14)

A STUDY OF THE USE OF FREON-12 AS A WIND-TUNNEL TESTING MEDIUM AT LOW SUPERSONIC MACH NUMBERS. Milton A. Schwartzberg. November 1952. 24p. diagrs., photo. (NACA RM L52J07)

THE EFFECT OF GROUND ON THE LOW-SPEED AERODYNAMIC, CONTROL, AND CONTROL HINGE-MOMENT CHARACTERISTICS OF A DELTA-WING—FUSELAGE MODEL WITH TRAILING-EDGE CONTROLS. William L Scallion. September 1954. 52p. diagrs., photos., tabs. (NACA RM L54H03)

ANALYSIS AND CALCULATION BY INTEGRAL METHODS OF LAMINAR COMPRESSIBLE BOUNDARY LAYER WITH HEAT TRANSFER AND WITH AND WITHOUT PRESSURE GRADIENT. Morris Morduchow, Polytechnic Institute of Brooklyn. 1955. ii, 19p. diagrs., tabs. (NACA Rept. 1245)

AN INVESTIGATION OF STING-SUPPORT INTERFERENCE ON BASE PRESSURE AND FOREBODY CHORD FORCE AT MACH NUMBERS FROM 0.60 TO 1.30. Phillips J. Tunnell. January 1955. 19p. diagrs. (NACA RM A54K16a)

DEVELOPMENT OF A NEW FLUTTER TESTING TECHNIQUE USING A TOWED DYNAMIC AIRPLANE MODEL EQUIPPED WITH AN AUTOMATIC STABILIZING SYSTEM. EXPERIMENTAL AND CALCULATED DYNAMIC STABILITY CHARACTERISTICS FOR SPEEDS UP TO 200 MPH. William C. Schneider. March 1955. 50p. diagrs., photo., tabs. (NACA RM L54L23)

EXPERIMENTAL DETERMINATION OF THE AERODYNAMIC DERIVATIVES ARISING FROM ACCELERATION IN SIDESLIP FOR A TRIANGULAR, A SWEPT, AND AN UNSWEPT WING. Donald R. Riley, John D. Bird, and Lewis R. Fisher. March 1955. 27p. diagrs., photos. (NACA RM L55A07)

LOW-SPEED STUDY OF THE EFFECT OF FREQUENCY ON THE STABILITY DERIVATIVES OF WINGS OSCILLATING IN YAW WITH PARTICULAR REFERENCE TO HIGH ANGLE-OF-ATTACK CONDITIONS. John P. Campbell, Joseph L. Johnson, Jr., and Donald E. Hewes. November 1955. 93p. diagrs., photos., tab. (NACA RM L55H05)

A WIND-TUNNEL TEST TECHNIQUE FOR MEASURING THE DYNAMIC ROTARY STABILITY DERIVATIVES AT SUBSONIC AND SUPERSONIC SPEEDS. Benjamin H. Beam. 1956. ii, 14p. diagrs., photos. (NACA Rept. 1258. Supersedes TN 3347)

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(9.2.3) HYDRODYNAMICS

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(9.2.4) LOADS AND CONSTRUCTION

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(9.2.5) PROPULSION

PRELIMINARY DRAG MEASUREMENTS OF THE CONSOLIDATED VULTEE XF-92A DELTA-WING AIRPLANE IN FLIGHT TESTS TO A MACH NUMBER OF 1.01. Donald R. Bellman and Thomas R. Sisk. January 1954. 21p. diagrs., photos., tab. (NACA RM L53J23)

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(9.2.6) OPERATING PROBLEMS

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(9.2.7) MATHEMATICS

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NOMENCLATURE

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